THE INFANTRY SCHOOL

F.B.
9a

NOT TO BE REMOVED FROM
LIBRARY
W. J. NIEDERPRUEM
MAJOR, INFANTRY

THE MARINE CORPS GAZETTE

MARCH 1939

INSURE *with*
United Services
—*"Founders' Policy"*

THIS COMPANY is owned by Service Men and was organized to increase and better the life insurance estate of the Service Man at the lower cost his preferred status warrants. For an example how you may benefit through this Company consider these features of the special Founders' Policy now available. It offers the opportunity of availing yourself of more insurance due to lower net cost.

Guaranteed profit-participating provision. The Company guarantees to pay to the insured, without action on the part of the Company's Board of Directors or of anyone else, the pro rata share of all of the net profits on these policies.

Dividends may be used to accelerate the paid-up date of the policy; or to purchase additional paid-up participating insurance on the same plan as the Founders' Policy; or to mature the policy as an endowment; each at your option.

Total and permanent disability feature, provides all premiums being waived and all benefits of the policy *including dividends* remain in force just as though premiums were being paid.

No restrictions as to residence, travel, occupation, or Military or Naval Service. (A genuine Service Man's policy).

Immediate payment to beneficiary. Upon death of the insured $2,500 will be immediately telegraphed, cabled, or otherwise speeded to the beneficiary without waiting for proof of death.

Payment of premiums by Government allotment of 1/12 of the annual premium each month is provided for by the terms of the policy itself. Balance of annual premium not deducted in case of death. Dividends to Death.

These are some of the unusual features that are united with the usual provisions of life insurance—and cost you no more in the United Services Founders' Policy. Why? Because the Company is owned by Service Men, operated for the benefit of Service Men only, and concentrates these benefits where they are most appreciated—in the pocketbooks of the Policyholders.

The Founders' Policy is especially and exclusively for Commissioned Personnel, for YOU. Simply send us your name, rank, address, with month, day and year of birth, and complete information on the Founders' Policy will be sent without obligation.

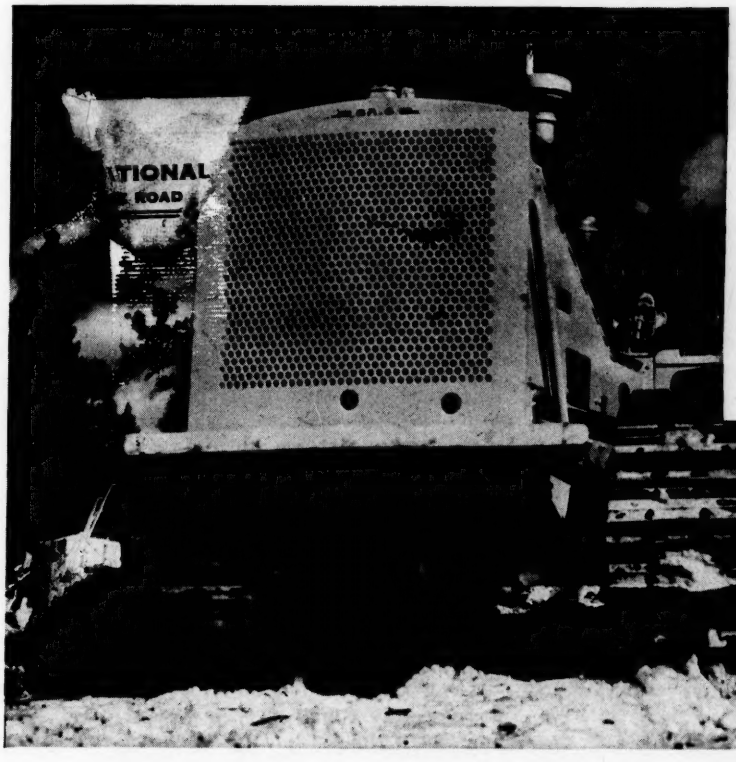
UNITED SERVICES LIFE INSURANCE COMPANY

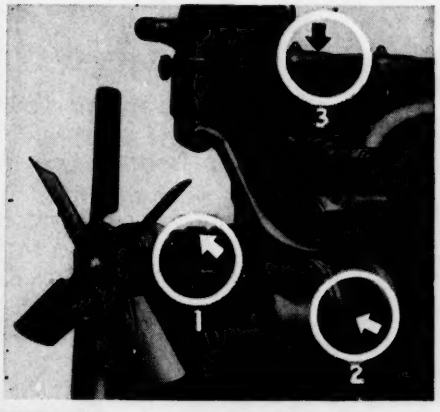
OLD LINE LEGAL RESERVE. INCORPORATED UNDER THE LAWS OF THE DISTRICT OF COLUMBIA

HOME OFFICES: 403 NORMANDY BUILDING, WASHINGTON, D. C.

NECESSITY

—THE MOTHER OF SIMPLICITY!





THE "CATERPILLAR" DIESEL'S THREE, SIMPLE WORKING-ADJUSTMENTS

1. **Fan-belt . . . adjusting pulley-rim after loosening a single lock-screw.**
2. **Water-pump . . . by turning nut at front of pump.**
3. **Valves . . . by turning screw and nut in valve-rocker end.**

NECESSITY, as much as anything, is responsible for the simple design of the "Caterpillar" Diesel Engine. Used throughout the world—by people speaking all languages and with varying degrees of mechanical ability—these power-plants must be easily, readily understood; absolutely fool-proof! And so they are built with a minimum of working-adjustments . . . only three; short and simple: at the fan-belt, the water-pump, and the valves.

But it is not simplicity, alone, which makes "Caterpillar" Diesels so popular for tractor, road machinery, and shaft or belt power. They are ruggedly constructed for years of dependable service . . . their parts and repairs are available throughout the globe . . . and they operate on fuel *free* from fire hazard!

CATERPILLAR TRACTOR CO., PEORIA, ILLINOIS

CATERPILLAR

REG. U.S. PAT. OFF.

DIESEL ENGINES
TRACK-TYPE TRACTORS
ROAD MACHINERY

XUM

THE MARINE CORPS GAZETTE

WASHINGTON, D. C.

Vol. 23 MARCH, 1939 No. 1

CONTENTS

MERCHANT SHIPS AND NATIONAL DEFENSE 5

THE JOHNSON SEMI-AUTOMATIC RIFLE 8

COOPERATION BETWEEN THE NAVY AND AVIATION 14

GOOD-BY TO SQUADS RIGHT 17

THE NEW ANTITANK GUN 21

NEW PUPPET PARADISE 22

BOIS DE LA BRIGADE DE MARINE 26

ELLET'S HORSE MARINES 30

THE SELECTION LAW 34

SAFEGUARDS YOU AND YOURS 39

SQUAD MUSKETRY PROBLEMS WHICH CAN BE FIRED ON RIFLE RANGES 40

DECORATIONS 44

BEACHHEAD LINE ITALIAN (TRIPOLI, 1911) 45

A BOOK AND EQUIPMENT BOX 50

DEMOCRACY VS. TOTALITARIANISM 52

BOOK REVIEWS 21, 56

Opinions or assertions in the articles are the private ones of the writers, and are not to be construed as official or reflecting the views of the Navy Department or the naval service at large.

Entered as second-class matter, March 27, 1929, at the Post Office, Washington, D. C., under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized November 23, 1918.

PATRONIZE OUR ADVERTISERS

Announcement of Association Regarding Awards for Prize Articles

First Prize	**$50.00**
Second Prize	**$30.00**
Third Prize	**$20.00**

THE ABOVE CASH PRIZES WILL BE PAID TO THE AUTHOR OF THE BEST ARTICLE ON A MARINE CORPS PROFESSIONAL TOPIC. SUBJECT TO BE SELECTED BY THE AUTHOR.

Rules Governing Award of Prizes

THE competition is open to all Marine Corps officers (active, retired, reserve) who are members of the Association. Articles offered shall not exceed 5,000 words and must be typewritten, double-spaced, on 8 x 10½ paper. Illustrations, photographs or sketches may accompany the article. Each competitor will send in a sealed envelope the article plus one copy to the Editor, Marine Corps Gazette, Room 3317, Navy Building, Washington, D. C., before September 30, 1939. The article shall be signed by a *nom de plume*. By separate post in sealed envelope, the full name and rank of the writer, with the *nom de plume*, shall be sent in to the same address. In determining the standing of the articles submitted, preponderance of weight will be given to their professional value, originality of ideas and the practicability of the line of thought. Literary merit is of secondary importance.

The Board of Officers of the Association will act as the Board of Judges. Any or all articles submitted will be subject to publication, with honorable mention, in the Marine Corps Gazette at the usual rates. All manuscripts submitted will become the property of the Marine Corps Association. None will be returned.

The November number of the Gazette will announce the results of the competition.

XUM

The Marine Corps Association

ORGANIZED APRIL 25, 1913, AT GUANTANAMO BAY, CUBA

BOARD OF OFFICERS

MAJOR GENERAL THOMAS HOLCOMB, *President*
BRIGADIER GENERAL JAMES T. BUTTRICK, *Vice-President*
LIEUT-COLONEL SHALER LADD, *Secretary-Treasurer*

BOARD OF DIRECTORS

BRIG-GENERAL W P. UPSHUR, U.S.M.C.
COLONEL J. T. BOOTES, U.S.M.C., retired
COLONEL J. R. HENLEY, U.S.M.C.
COLONEL A. E. RANDALL, U.S.M.C.
COLONEL D. M. RANDALL, U.S.M.C.
COLONEL J. C. FEGAN, U.S.M.C.
COLONEL E. C. LONG, U.S.M.C.
LT-COLONEL A. ADAIR WATTERS, U.S.M.C.R.
LT-COLONEL C. T. BROOKS, U.S.M.C.
MAJOR B. S. BARRON, U.S.M.C.R.
MAJOR E. A. CRAIG, U.S.M.C.
MAJOR T. C. PERRIN, U.S.M.C.
CAPTAIN W. N. MCKELVY, U.S.M.C.
CAPTAIN A. R. PEFLEY, U.S.M.C.
CHF.MAR.GUN. C. A. LLOYD, U.S.M.C.
CHF. Q.M. CLK. E. E. BARDE, U.S.M.C.
CHF. PAY CLERK T. E. MURPHY, U.S.M.C.

OBJECT OF ASSOCIATION—"The Association is formed to disseminate knowledge of the military art and science among its members; to provide for the improvement of their professional attainments; to foster the spirit and preserve the traditions of the United States Marine Corps; and to increase the efficiency of its members."—Section 2, Article 1, of the Constitution.

CONDITIONS OF MEMBERSHIP—Active membership open to officers of the United States Marine Corps and Marine Corps Reserve and to former officers of honorable service with annual dues of $3.00. Associate membership, with annual dues of $3.00, open to officers of the Army, Navy and Organized Militia and to those in civil life who are interested in the aims of the Association. Honorary members shall be elected by unanimous vote of the Board of Officers.

Associate membership, with annual dues of $3.00, including yearly subscription to THE MARINE CORPS GAZETTE, open to enlisted men of the Marine Corps of the first pay grade.

CONTRIBUTIONS—The GAZETTE desires articles on any subject of interest to the Marine Corps. Articles accepted will be paid for at the GAZETTE'S authorized rates. Non-members of the Association as well as members may submit articles. In accepting articles for publication, the GAZETTE reserves the right to revise or rearrange articles where necessary.

All communications for the Marine Corps Association and THE MARINE CORPS GAZETTE should be addressed to the Secretary-Treasurer, Marine Corps Association, Headquarters. U. S. Marine Corps, Washington. Checks for payment of dues should be made payable to the Secretary-Treasurer.

THE MARINE CORPS GAZETTE

LIEUT-COLONEL SHALER LADD, U.S.M.C., *Editor*

Published Quarterly By

THE MARINE CORPS ASSOCIATION

Room 3317, Headquarters U. S. Marine Corps, Washington, D. C.

Printed at 32nd St. & Elm Ave., Baltimore, Md.

Authors are responsible for all statements contained in articles published in this magazine.

THE MARINE CORPS GAZETTE

Vol. 23 MARCH, 1939 No. 1

Merchant Ships and National Defense

BROCKHOLST LIVINGSTON

HE United States Marine Corps has a vital interest in the existence of an adequate American Mercnant Marine because upon such it must depend for the transportation of its forces in time of war. Any major war in which this country is involved will require the acquisition by the Navy of a vast number of vessels for use as transports and to supplement the vessels of the fleet train. The President was cognizant of this when he presented to Congress the question of whether or not the United States should have an adequate merchant marine.

Since the enactment of the Merchant Marine Act of 1936 and the organization of the Maritime Commission which took over the duties of the former Shipping Board Bureau, important advances have been made in formulating a shipping policy for the country. In the past we have had other acts on the statute books to enable assistance to be given to American shipping but they have not been entirely successful. The Marine Corps has been in a position to observe the workings of the various acts because its members have been transported on American lines operating to ports where Marine Corps activities are maintained. The shortcomings of earlier acts have no doubt been noticed and the competition from foreign lines has been all too apparent. It is hoped that with the present law there may be built a new merchant marine capable of better serving our needs and sufficiently strong to successfully compete against the vessels under foreign flags which operate over practically every route sailed by American vessels.

Ships are unquestionably the most important need of a merchant marine. The Maritime Commission recognized this and realized the inadequacy of the vessels now composing our Merchant Marine set about to encourage the building of modern vessels capable of properly serving our needs in times of peace and suitable for conversion to naval auxiliaries in periods of emergency. The Commission has the authority to build for the account of private owners paying the difference (within limitations) between the price in American shipyards and the cost in a foreign shipbuilding yard. It may also build for its own account and charter or sell the vessels upon their completion. The cost of installing any features required in their capacity of potential naval auxiliaries is paid by the Government in addition to the construction-differential subsidy already mentioned.

Up to the end of 1938, the Maritime Commission has contracted for fifty-two new vessels and several more will probably be under way within the near future. The largest vessel ordered is the *America,* to operate in the North Atlantic service to Europe. Thirty-two are cargo vessels for the Commission's own account, four are cargo vessels for the Export Lines' Mediterranean service, and three are combination passenger and cargo ships for the Gulf-South American service of the Mississippi Shipping Company. The remaining twelve are fast tankers originally ordered by the Standard Oil Company of New Jersey but two of them have already been sold to the Navy and two to the Keystone Tank Ship Corporation. These tankers were designed especially for use as naval auxiliaries and the cost of installing engines for higher speed than is required for commercial carriers of oil was defrayed by the Government under the provisions of the national defense features' section of the law. All of the other vessels which are under construction have been approved by the Navy Department as suitable for conversion to naval use.

Bids have been received for the construction of combination passenger and cargo vessels for the Commission's account and it has been reported that these will be used to replace the old war-built vessels in the round-the-world service of the American President Lines, successors to the Dollar Line, well known to Marine Corps officers traveling across the Pacific. Plans are also being drawn for three express liners of about 35,000 tons displacement to operate with the *President Coolidge* in the Pacific, and for a type of small cargo vessel somewhat slower than those now under construction for the Commission. All of these vessels will, of course, be superior to the ships which now make up the greater part of our Merchant Marine. It is stated that 91.8% of the number of vessels in our entire sea-going merchant fleet will be twenty years old or more in 1942. To replace even the vessels in the overseas trades will require the construction of a vast number of new ships in the immediate future.

To indicate the close relationship between the building of merchant ships and national defense it may be mentioned that the last contract signed by the Maritime Commission covers two freighters to be built on the Pacific Coast. While the bid from the West Coast yard was higher than bids received from yards on the Atlantic

Coast, negotiations were opened with the bidders in accordance with a newly-inserted section of the law which authorizes the allocation of contracts to yards deemed necessary to the national defense. The Commission has found that Pacific Coast shipyard facilities need assistance in the interest of national defense and the contract which has been signed will provide a part of the work necessary to encourage the maintenance of adequate facilities. Should the price paid in cases of allocation be higher than the lowest bid received, the excess is considered as a charge against national defense.

The Maritime Commission has determined on a program of construction of fifty vessels a year for ten years or a total of five hundred modern ships by the end of that period. It is intended that these vessels be suitable for rapid conversion to naval auxiliaries in time of need for, as the Commission stated in its economic survey of the Merchant Marine, published in 1937, the vital relationship between the Merchant Marine and national defense is even more important than its role in the development of commerce. In the declaration of policy contained in the Merchant Marine Act, 1936, it is stated that "it is necessary for the national defense . . . that the United States shall have a merchant marine . . ." and many have claimed that this is the primary justification for the maintenance of subsidized American vessels in foreign trade.

In conducting its survey of the merchant fleet the Maritime Commission had the collaboration of all of the defense agencies of the Government. Without divulging the details of our plans for defense, our probable shipping requirements in war time were indicated and it was said that these placed the merchant service in a position second only to that of the armed forces in the maintenance of an adequate defense establishment. A minimum of one thousand ships of all types aggregating about six million gross tons is estimated as the requirements of the military forces in the event of war with a major power. These vessels would be required in the early stages of a conflict for technical military purposes and would probably represent but a fraction of the number that would ultimately be necessary in case of prolonged hostilities. Such a number of vessels is now available but most of them are old and their replacement is one of the principal subjects for study by the Commission.

The withdrawal of foreign vessels from our carrying trade in time of war seriously disrupts our foreign commerce and, likewise, the withdrawal of our entire merchant fleet from its regular pursuits to become naval auxiliaries would practically ruin our normal trade. Consequently, there is need for a reserve of ships to be used to take the place of those withdrawn for naval requirements. It has been suggested that the Maritime Commission maintain a pool of two hundred laid-up vessels for possible use in an emergency. There are now over one hundred of these in the Commission's laid-up fleet and it is anticipated that others will be added as more modern ships are built for the active fleet. As an example of the uses to which such reserve ships may be put we have the case of the British coal strike of 1926 when the Shipping Board took one hundred of the laid-up fleet, placed them in various trades formerly covered by the tied-up British ships, and thus maintained the flow of our commerce. It is estimated that several hundred million dollars of the national income were saved by moving goods in this manner which otherwise could not have been exported.

There are innumerable uses to which merchant vessels are put when they are called into service with the armed forces. Aside from the general carrying duties of transports, cargo vessels and tankers, they are capable of conversion to aircraft carriers. For this type of duty ships should be capable of supporting a flight deck six hundred feet long by sixty feet wide, with an absolute minimum length of five hundred feet. These vessels must have a minimum speed of eighteen knots and should be capable of twenty knots or better. Military authorities believe that there should be at least twenty such vessels in the American Merchant Marine. Such vessels may also be converted to auxiliary cruisers and, for this duty, should have a speed of not less than twenty knots and preferably much more, and a large cruising radius. At the present time there are not ten vessels of this class in the American merchant fleet and some of these meet only the minimum requirements.

Vessels of the fleet train should have a minimum speed of sixteen and a half knots. At present our Merchant Marine is woefully lacking in such vessels but the Maritime Commission's C-3 type now under construction is intended to remedy this lack to some extent. Similarly, we have no commercial tankers capable of making this speed and the Commission has, therefore, encouraged the construction of the Standard Oil ships previously mentioned. The Secretary of the Navy has indicated a need for at least twenty such vessels although the Navy would require, for a maximum military effort, a total of some three hundred tankers of various types and speeds. There has been more private construction in the tanker classes in recent years than in any other. To overcome this unbalanced program of replacements and to provide modern examples of all of the various types which make up a merchant fleet is one of the many efforts of the Maritime Commission.

It is a fundamental principle that the speed of the slowest vessel must be the speed of a convoy. The higher the speed the faster the turn-around on voyages and the less chance there is of successful attack by enemy raiders either surface, sub-surface, or air. Costs of operation in war-time are not a primary consideration and, consequently, it is wise to provide as fast vessels as possible for general duties either with the fleet or for ordinary transport work. There are natural economic limits to the speed which may be provided for commercial carriers but whether we have reached that limit as yet is questionable. The super-liner is not an advisable investment for most nations but it is not its speed but its tremendous size which reduces its potential value as a naval auxiliary. We all know the worry the *Leviathan* was to all concerned carrying as it did many thousands of troops which might all have been lost had the ship been torpedoed.

Three *Manhattans* are certainly more valuable to us generally than one *Queen Mary*. However, greater thought may be given to the advantages of building faster and fewer vessels for peace-time operation. The Japanese are reported to have succeeded in constructing commercial carriers of high speed which they operate profitably in times of peace and which will be invaluable in any major war they may wage. Perhaps we need to take a hint from them with regard to our own merchant service.

There is much truth in the statement that the problem of maintaining an adequate merchant marine involves the reconciliation of two vastly different and sometimes antagonistic sets of requirements, the one for peace-time operation, and the other for defense. However, since the Government's subsidization of merchant shipping is predicated, primarily, on the vessels' usefulness as naval auxiliaries the characteristics required to fit them for such duties should be the principal consideration in their design. It is, nevertheless, possible to combine the two with success as has been done in the other countries. Naturally, certain types such as tenders and other specialized vessels cannot be converted with the best results. Since we know the exact numerical requirements in such types, they should be built in peace-time and operated as a part of the Navy. Our present auxiliary program is designed to furnish us with the minimum requirements in such types.

Aside from the purely military requirements of war, merchant vessels are badly needed to serve the demands of commerce in such periods. Strategic materials must be imported and normal commerce must be carried on if we are to avoid disruption of domestic markets and discomfort to the civilian population. It was the crying need for manganese ore in the last war which caused us to send the naval collier *Cyclops* to Brazil on its ill-fated voyage. Our requirements in another war when we may possibly not have the support of allied nations will be greater than ever. Accordingly, the mere requirements of the military forces for shipping will not suffice in building a merchant marine. We must have sufficient margin over and above their needs to pursue at least a portion of our peace-time volume of foreign commerce and to transport the materials which are essential to our industries. All of these considerations make it expedient for the United States to maintain a sizable merchant marine in the international carrying trades.

While ships are a vital part of a national shipping policy there are other considerations as well and the question of personnel is one of the most important of these. The Merchant Marine must be considered as a source of naval reservists and the Navy Department has, consequently, taken a close interest in the progress which has been made in training and improving the efficiency of the personnel. While the Coast Guard has been given the actual task of training men for the sea, the close connection between that service and the Navy permits the cooperation which is so important if the men trained are to be available for future use by the military forces.

For some months there was a well-directed effort to belittle the efficiency of our merchant ship crews but recent observation has disclosed that all is not as black as it was painted. We must grant that there have been instances of lack of discipline, insubordination, and inefficiency but our merchant fleet is not the only one with such troubles. For every bad case one can point to many cases of extreme efficiency, outstanding discipline, and extraordinary heroism. The many rescues by American ships in the North Atlantic do not denote lack of efficiency. However, there is always room for improvement and the Maritime Commission has undertaken the training of both licensed and unlicensed personnel. A cadet system which it is anticipated will far surpass the old methods has also been instituted. Men as well as ships are thus being provided in order to carry forward the merchant marine program and assure us an adequate supply of both in time of emergency.

Because of the value of merchant ships in the scheme of national defense, Congress has authorized that operating-differential subsidies may be paid to private operators of American vessels to make up for the difference between American costs of operation and those of foreign competitors in the international shipping trades. Up to the present time thirteen lines have received subsidy contracts from the Government. The lines covered by these agreements serve a great portion of the globe and include 143 ships. Each long-term subsidy agreement calls for the construction of such new vessels as may be required to maintain a modern merchant marine. In the Commission's own words, "all of this money and the effort behind it, is being spent with just one objective in mind, and that is to develop a sound and efficient American Merchant Marine." The close connection between a sound national defense and an adequate merchant fleet is so well recognized that the two must be considered as complementary parts of a general scheme.

To further indicate the relationship between the development of a merchant service and national defense one may cite the situation with regard to trade with South America. European competition with interests beyond normal economic and commercial activities has been obtaining a strong foothold in the countries which the President has classed as our "Good Neighbors." To protect our interests in those countries required action by the Government and one tangible step that could be taken in the protection of those interests was the development of proper communication and transportation systems. The inauguration of the "Good Neighbor Fleet" was a definite step in that direction. The Maritime Commission has been criticized for its further entry into the shipping business as an active participant and while it is not the intention of the present writer to discuss this angle of the subject, it may be said that our interests in the countries to the south of us are of such importance that improvement in our communications with them was imperative. We must accept the Commission's conclusion that such improvement as was needed could not be obtained through the private operator already established. The only alternative appeared to be Government-ownership which became a reality with the inauguration of the service mentioned. Those who oppose government's

(Continued on page 59)

The Johnson Semi-Automatic Rifle

CHANDLER B. GARDINER (*formerly Lieutenant, Air Corps, U.S.A.*)

●

PROLOGUE

THREE years ago a Marine Corps Reserve Lieutenant, experimenting in a small Boston machine shop, placed a strange looking contraption consisting of a frame, barrel, bolt, hammer, firing pin, ejector, and mainspring, in a bench vise, aimed the barrel at a sand-box, loaded a .30 M1 cartridge, and pulled a twenty foot lanyard. Out flew the empty case.

Nine months later the same Marine Corps Reserve Lieutenant came to Headquarters, U. S. Marine Corps, with a somewhat crudely finished semi-automatic rifle in a take-down case. Everyone, including General Russell, found time to look at the contraption. Encouraged by the favorable reactions of the Marine officers, the Reserve lieutenant left Headquarters, resolved to complete his invention.

Upon leaving the Navy Building, he encountered three Marines whose names are famous in military rifle shooting circles, Major Jacob Lienhard, Major Merritt A. Edson, and Chief Marine Gunner Calvin Lloyd. This meeting naturally resulted in an informal visit to Quantico, where considerable powder was burned to the satisfaction of all save the Quantico range cat which at one stage was accidentally bracketed by several hot ejected cases.

Having also at this time conferred with the ace gun editor of the "American Rifleman" magazine, the National Rifle Association's well-known Mr. Fred C. Ness, the inventor proceeded to develop several perfected models. In 1938 four rifles and one light-weight machine gun were being heard on several firing lines.

From time to time the Reserve Lieutenant called at Headquarters to show his latest weapons to Marine Officers who continued to advise and encourage him, to Lt-Col. Thomas B. Gale, who, while stationed at Boston back in 1935, had warned him against designing automatics requiring lubricated ammunition, to Lt. Col. Raymond Knapp who, in 1933, had instructed this same young Lieutenant in the weapons course at Quantico.

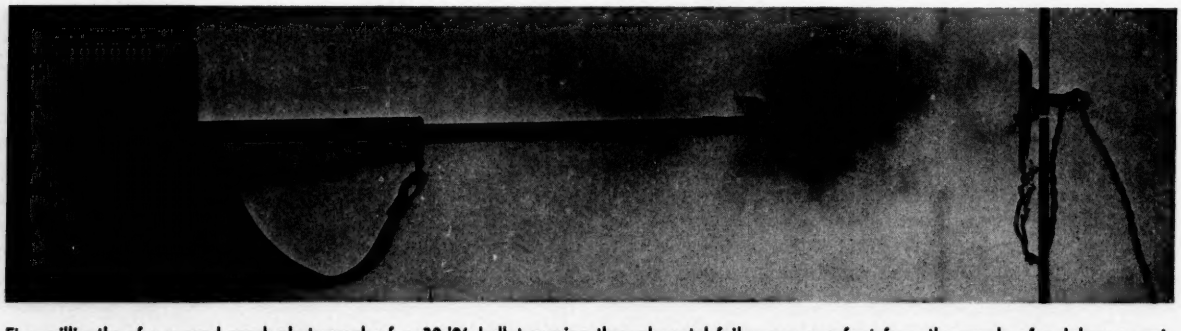
In 1934 Col. W. T. Hoadley, USMC, read the manuscript of an article by Second Lieutenant Melvin Maynard Johnson, Jr., U.S.M.C.R. He forwarded this article to the editor of the MARINE CORPS GAZETTE, who accepted and published "In Re Springfield." From then on numerous articles by Johnson have appeared in the Gazette, Army Ordnance, and other periodicals.

Having completed Harvard University's Field Artillery R.O.T.C., captained the Harvard rifle and gun teams, rowed on the Varsity crew, Johnson, a B.S. 1931, was commissioned in the Marine Corps Reserve while attending Harvard Law School from which he graduated in 1934. He completed the Basic Course, Marine Corps Schools, was promoted to First Lieutenant, completed the junior course and is now a Captain in the Reserve. Captain Johnson is a member of the Massachusetts Bar, and has lectured part of each year at Boston University Law School since September, 1935. He is the President and a trustee of the Johnson Automatics Trust.

THE RIFLE

The Johnson semi-automatic rifle, Cal. .30 M1, is of the short-recoil rotary-bolt type, weighing about nine and one-half pounds. It is furnished with a fixed or detachable magazine holding five to ten rounds. The fixed-type magazine holds ten rounds, may be loaded with the 1903 cartridge clip, or singly, is of the rotary feed type, and can be loaded or unloaded with the bolt closed or open. The bolt remains open when the last shot is fired. The detachable style magazine is of the simple vertical feed type and holds five rounds. The standard 1903 Springfield Cal. .30 M1 barrel is adapted to the Johnson receiver. The standard Springfield bayonet is used on the military model, and the barrel, optionally, is covered with wooden hand guards, or is allowed full ventilation through a radiating hand guard.

This weapon has about 73 parts. The receiver sight consists of a long, spring leaf, with a 0-1000 yard ele-



Five millionths of a second spark photograph of a .30-'06 bullet passing through metal foil screen one foot from the muzzle of a Johnson semi-automatic sporting rifle (blurred bullet retouched). Barrel has just begun to recoil. Bolt is still locked.

Five millionths of a second spark photograph of a .30-'06 bullet emerging from the muzzle of a Johnson semi-automatic sporting rifle (blurred bullet retouched). Bolt is still locked.

vator block. The peep is set between two ears, and has ample windage adjustment. The front sight is of the flat post type, protected by two curved-out ears, so shaped that they cannot be mistaken for the post. Except for the barrel return spring, mainspring, strut, semi-automatic sear, and two simple integral cams, it has no special "automatic" parts. Although it is of the recoiling barrel type, its function is not impaired by the attachment of a bayonet.

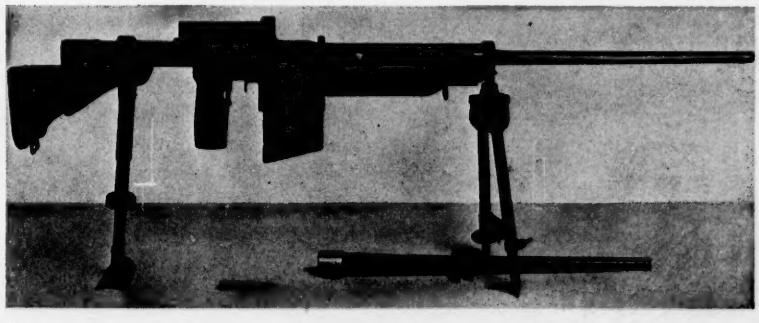
The most startling features of the Johnson rifle are its amazing simplicity and its unusual reliability of function under adverse conditions. Remembering the exhortations of Lt. Col. Raymond Knapp at the weapons class in Quantico in 1933, Johnson carefully avoided complicated designs. Instead of resorting to gas-actuation, he finally determined to use the basic and never failing recoil of a rifle in the simplest possible way. To quote a recent article by Mr. Fred C. Ness (American Rifleman, November, 1938), entitled "The New Johnson Rifle."

I had never, as a sportsman, taken any personal interest in powerful autoloading rifles until I had seen, handled, and fired Melvin Johnson's first creation, exactly two years ago. From my first actual experience with it, I felt instinctively that Johnson's basic design was the only practical one for the American sportsman. Its inherent simplicity all the way through should have a strong appeal for every unbiased engineer, mechanic, gun-lover, and shooter.

Barrels on this Johnson rifle have been removed and replaced in 5 seconds. The entire gun has been reduced to its components in a minute, and reassembled in 1½ minutes. The barrel-and-bolt mechanism has been replaced in the gun in 20 seconds. The extractor has been removed and replaced in 8 seconds. The rifle can be taken apart and reassembled without special tools. The bolt handle provides the screw-driver for the stock screws, and the firing pin serves as a drift for all pins.

While serving as a Lieutenant (he is now Captain) in the Marine Corps Reserve, Mr. Johnson became deeply interested in machine guns of all types, and made an exhaustive study of the mechanics of autoloading firearms of every description, ancient and modern. This investigation served to direct his energy toward overcoming faults and deficiencies which, he discovered, were shared alike by existing autoloading rifles and light machine guns. That was a big order, but Mr. Johnson met with remarkable success, and by early fall of 1936 he had the pilot model of the Johnson Semi-automatic rifle performing satisfactorily on the firing line.

The Johnson bolt is a husky one, ⅞-inch in diameter and 5 inches long. In place of the conventional two lugs, it has eight locking lugs. These are evenly spaced in nine segments around the head of the bolt, the ninth lug being omitted to accommodate the extractor, in its slot on the right-hand side. On the opposite side of the bolt is the slot for the ejector, which latter is unusually rugged. The extractor is flush with the bolt surface, and rotates with it, there being no slip-collar. The short knob-like operating handle locks the extractor in place. This handle has a locking spindle for easy removal and replacement. Its rightangled arms, seated in the extractor slot, ends in a screw-driver blade for removing the stock screws in dismounting the rifle. The camming arm and the camming slot are sloped at an angle of nearly 40°. The rear end of the bolt is linked to a strut 8½ inches long, which transmits the pressure of the action-spring (in the butt-stock) to the bolt. Guided by the receiver, the path of the bolt is in a straight line, forward and back. Directly behind the bolt is a cushioned buffer-plate which serves as the bolt stop. This is held by a lock-plate which fits into slots in the receiver, and is in turn locked by the tang-cover lock. This triple arrangement effectively

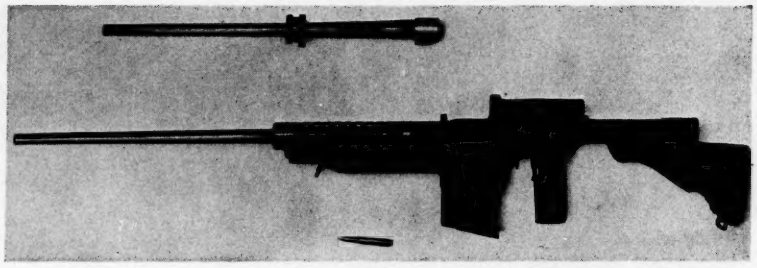


Johnson light military machine gun—caliber .30-'06—weight 14 pounds with mounts—variable cyclic rates of fire. Machine feed shown. Belt or drum feed also available.

XUM

closes the rear end of the receiver, and protects the shooter against escaping gas far better than do conventional actions.

When the bolt is rotated 20°, the eight circumferential locking lugs on its forward end align with corresponding channels in a cylindrical block on the breech of the barrel, thus unlocking the bolt. This block, or barrel-bushing, is one of the two barrel guides and supports previously mentioned. To facilitate manufacture, this lug-seat and barrel-guide block is a separate piece, securely screwed to the barrel exactly like the receiver hood of a conventional bolt-action rifle. The eight abutments between the lug channels become locking shoulders when the bolt is rotated to the closed position. These locking shoulders are very strong, they being 1½ inches long.



Johnson light military machine gun—caliber .30-'60—weight 12 pounds—variable cyclic rates of fire. May be accurately fired from the shoulder without mounts. Magazine feed shown.

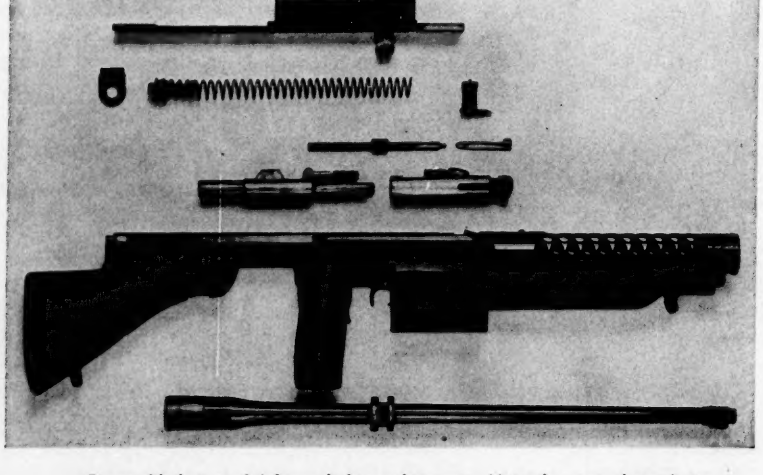
The Johnson is a recoil-operated action. The barrel recoils only about ⅜-inch, the bolt being locked to it until the camming slot and arm have rotated through 20°. The barrel stop in the forward part of the receiver now permits the bolt to continue rearward free of the barrel, carrying the fired case with it. The ejector stops the case, and the bolt continues back to cock the hammer and compress the action-spring, it finally being stopped by the buffer-plate. The action-spring then returns the bolt, which pushes ahead of it the topmost cartridge in the magazine. In the meantime the barrel-return spring, located in the forward part of the receiver, has brought the barrel forward to its normal position, and the returning bolt shoves the cartridge into the chamber, and the cam rotates the bolt to locked position. The time required for all this is $^{1}/_{10}$th second, indicating a possible rate of fire of 600 shots per minute. The normal rate of effectively aimed semi-automatic fire is one shot per second.

When the extracted case is abruptly stopped in its rearward travel by striking the ejector, it is tipped to the right and slightly upward. At the edge of the ejection port it collides with a lip on the receiver, which deflects it downward and slightly forward. The result is that the cases pile up to the right and about 4½ feet from the gun in standing shooting, and about 2 feet from the gun when shooting prone. Before this deflector was incorporated in the receiver, the cases were thrown 50 feet to the right, which of course was all right for field shooting, but not so good on the firing line of a rifle range.

The extractor claw on the Johnson rifle is relatively shallow, but broad and strong as compared with ring-held extractors on conventional bolt-action rifles. In practical tests it has proven to be quite positive in its ability to pull fired cases from the chamber. Primary extraction is aided considerably by the jars and vibration of the rifle mechanism. As the bolt is unlocked from the barrel it moves back rather smartly, and pulls the fired case with it just as it receives a tap from the locking cam. Also, according to calculation, the light pressure remaining in the chamber at the instant of extraction is just enough to accelerate the operation with some back thrust on the head of the case, though the pressure is not enough to cause case-expansion.

Unlike some autoloading mechanisms, the Johnson action is not dependent upon perfect mechanical timing for its functioning. There is nothing haphazard about the timing in the Johnson rifle, but this is more or less automatically taken care of by a fortunate combination of circumstances rather than through mechanical perfection; and apparently it is self-compensating. While the locking and unlocking functions are purely mechanical, chamber pressures directly control the timing. When pressures are too high, the friction surfaces become "frozen" together, and remain so until pressures have fallen to a point that will permit the bolt to turn and disengage the lugs. The bullet has emerged from the muzzle well before this occurs. The muzzle blast adds additional impetus to the recoil, and in a barrel of average length this comes at the right time to boost retraction and aid extraction.

When the bullet leaves the muzzle, the barrel, locked to the action, has moved back a maximum of about 1/16-inch, and the chamber pressure is about 12,000



Disassmbled view of Johnson light machine gun. Note the unusual simplicity.

Johnson semi-automatic sporting rifle type V, caliber .30-'06.

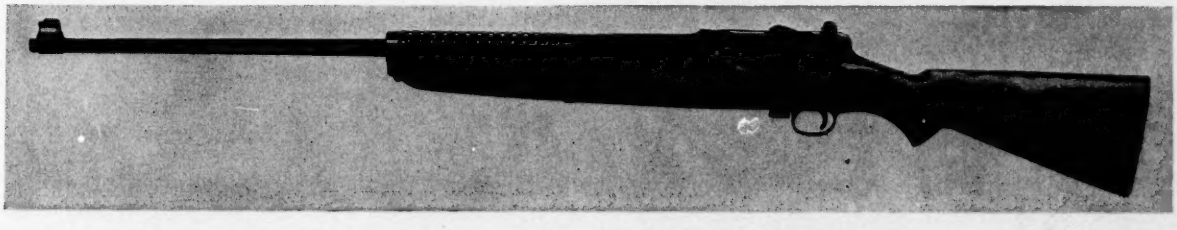
pounds. When the bullet is two feet from the muzzle the action-movement has reached 3/16-inch and the pressure has dropped to 5,000 pounds. The bolt begins to unlock at this point. By the time the bullet is four or five feet from the muzzle the action-travel is ⅜-inch, and the remaining ("residual") pressure is not over 2,000 pounds. The unlocking of the bolt is now completed. This progressive pressure reduction and action movement obtains with different standard loads. Radical departures from normal pressures and velocities could, of course, be accommodated by making certain adjustments. However, the standard rifle seems to be quite flexible in adapting its functioning to a wide range of pressures and velocities. It has worked remarkably well with badly worn bores—oversize to the gas-leaking stage, and with low-power .30-'06 ammunition giving pressures under 40,000 pounds; and yet at the same time it fired and ejected a proof cartridge which developed about 70,000 pounds pressure.

The arm has been designed to provide adequate safety for the shooter, with strength sufficient to safely handle pressures 100% higher than those normally encountered in firing standard ammunition. Functionally it is safe, because it cannot be fired until the bolt is fully locked. Just forward of the trigger guard is a right-hand safety, with a grooved thumb-lever which turns laterally and engages a notch in the sear arm. The 9½-inch forward extension of the 20-inch receiver is a ventilated sleeve which keeps the shooter's hands from contact with the barrel. The fired cases are ejected away from the shooter; even from the vicinity of a southpaw's face. Recoil effect upon the shooter's body is appreciably less than with the M 1903 Springfield and the same loads. I have seen Mel Johnson fire this rifle in one hand, like a pistol, using M1 Service ammunition. The rifle cannot be fired unless the trigger is released after each shot.

Because of the full-floating, unrestricted method of supporting the barrel in the Johnson rifle, I would expect this rifle to be relatively insensitive to moderate variations in loads and changes in holding methods. The two barrel bushings fit the receiver slidably about 10 inches apart, and bottom lugs on these bushings slide in channels in the receiver. Therefore the rifle should have a fairly constant zero. When we fired it there was no appreciable lateral jump of the muzzle, as is the case with other military rifles—an important advantage in semi-automatic fire. The maximum recoil movement is not over $^{7}/_{16}$-inch, and the barrel hardly moves until the bullet leaves the muzzle. Then it moves $^{3}/_{16}$-inch before the bolt begins to open. These observations refer to a normal barrel-length of 24 inches. The Johnson rifle also functions as reliably with a 20-inch barrel without any special adjustment, although the muzzle blast is materially greater. This suggests the practicability of employing two interchangeable barrels of different lengths on the same Johnson.

The accuracy of the Johnson rifle is substantially the same as that of the Model 1903 Springfield. Our only target shooting was at short range from the offhand position, but the results compared favorably with those obtained under similar conditions with the Springfield. The inventor equalled his usual offhand score at 200 yards, when firing the Johnson rifle at the rate of a shot in 2 seconds. He has a record of 5 shots in a 7-inch group at 200 yards fired in 5 seconds, and a 10-inch group of 10 shots fired in 14 seconds. These two records were made with the third Johnson rifle, which was equipped with the light 22-inch Remington sporting barrel. The first Johnson rifle which we fired had a Springfield barrel. This one was fired by an expert shooter with 1918 (war-time) ammunition, and made 25 consecutive bullseyes on the 10-inch "A" target at 300 yards. At 500 yards 20 consecutive bullseyes were made by the same shooter with the same ammunition on the 20-inch "B" target. At both ranges several 3-shot strings were fired at the rate of one shot in two seconds, and resulted in 3 bullseyes per string at both ranges.

As to functioning, these rifles have what I consider a truly remarkable record. In impartial tests conducted by different persons in various different places, they have put on a fine performance under the most severe condi-

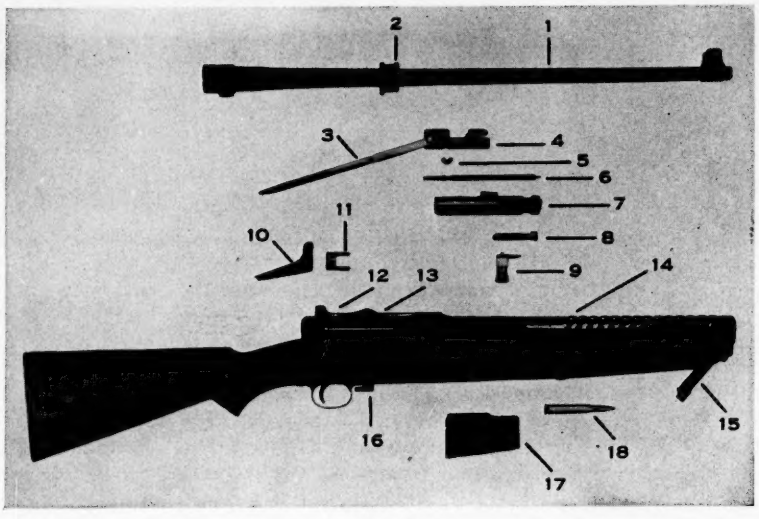


Johnson semi-automatic sporting rifle, type V, caliber .30-'06.

XUM

tions, including excessively extended firing, and use with defective ammunition, abnormally loose barrels, and intentionally sloppy assembly. In several of these tests the Johnson autoloader has outclassed the performance of every other shoulder arm in existence.

I will cite a dozen specific performances already recorded to the credit of the Johnson rifle: (1) It fired 300 rounds of war-time ammunition without a single malfunction. (2) It fired 1,300 rounds of low-pressure (39,000 pounds) loads with only 2 rounds short of perfection (1 failure to feed, ascribed to a defective magazine, and 1 failure to eject ascribed to a deficient load). (3) It fired 247 consecutive rounds of excessively soft ammunition. (4) It fired 2,400 consecutive rounds in 1½ hours of elapsed time, at the rate of from 30 to 100 shots per minute, after the action had been previously fouled by firing 500 rounds, without cleaning or oiling. (5) Out of nearly 4,000 rounds (3,936) the functioning was 98% perfect, and there was no mechanical failure. (6) After 500 consecutive rounds, practically 900 rounds (896) were fired, with only one failure to feed; and 1,000 additional rounds were fired with only three failures to feed. (7) After being fouled by the firing of 2,100 rounds, and heated by firing 1,600 continuous rounds, 800 rounds were fired in less than 20 minutes from prone and sitting, by one man who experienced no fatigue. (8) After firing 2,122 rounds, without cleaning or oiling, 225 rounds more were fired at the rate of from 40 to 50 shots per minute, without any kind of failure. (9) After the firing of 2,347 rounds, an additional 104 rounds were fired at the rate of 85 shots per minute at various elevations up to 85°. (10) The rifle extracted a pre-ignited load (raised to ignition temperature in two minutes by barrel heat, resulting from 2,400 continuous rounds) and ejected a proof cartridge that developed more than 70,000 pounds. (11) It fired and extracted 24 consecutive rounds of ammunition that had been covered with sand. (12) It fired and extracted 8 consecutive rounds after sand had been poured through the entire action.



Johnson semi-automatic sporting rifle disassembled. Note the simplicity of parts. Index to parts as follows: 1—barrel, 2—barrel guide collar, 3—link, 4—locking cam, 5—firing pin retainer, 6—firing pin, 7—bolt, 8—extractor, 9—operating handle, 10—bolt stop plate, 11—bolt stop, 12—windage knob, 13—rear sight elevator, 14—receiver, 15—barrel recoil spring and latch assembly, 16—safety lock lever, 17—three shot magazine, 18—.30-'06 cartridge.

On one occasion a Johnson rifle was buried in mud for five minutes and then at once placed in a sand box (with blower) for three minutes. This rifle was nevertheless still capable of functioning.

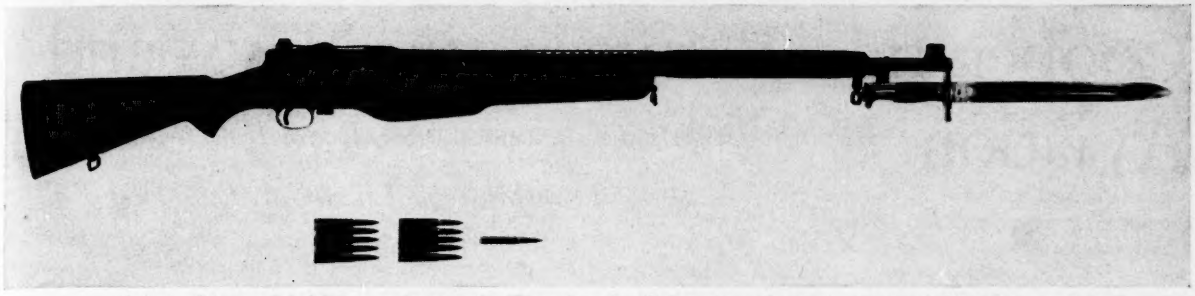
By way of comparison the following is quoted from the *Infantry Journal*, (Sept.-Oct., 1938) relative to the well known Mark I (Garand) rifle:

"Test firing indicates that a properly lubricated M1 rifle using suitable ammunition should not develop any malfunctions until about 400 rounds have been fired. However, lubrication is essential. Under normal conditions about 98% of the malfunctions will result from a breakdown in the lubrication of the weapon. The exact point at which this will occur will depend largely upon the care with which the weapon is lubricated and the rate of fire to which it is subjected. M1 rifles, like new automobiles, are a bit stiff and inclined to be sluggish at first. After they have been fired some, the small imperfections in metal surfaces in contact become polished and smooth. The more the rifles are fired, provided they are kept properly lubricated, the easier the action becomes and the greater the number of rounds that can be fired without malfunctions."

With reference to the Johnson rifle, Mr. F. C. Ness writes:

"Although the Johnson Semi-automatic rifle is a short-recoil autoloader, the travel-distance of its barrel recoil is apparently not critical. The maximum barrel recoil has been varied as much as ⅛-inch or 28.5% without altering the functioning. Headspace has been deliberately increased by as much as .025-inch without stopping the action. Bolt and cam clearance has been increased from a snug .002-inch minimum to as much as .018-inch without apparent effect upon the functioning. In a demonstration the parts of one rifle, which had just completed 3,000 rounds of intense firing, were assembled in another rifle, and the mechanism functioned perfectly with both barrels. No special lubrication is required in the action. None is required on the cartridge or in the chamber. Ordinary care and cleaning of the rifle are all that is necessary. The test performance, reported above, prove that it is capable of functioning without any cleaning or oiling. When cases are lightly lubricated the action functions without any mechanical extractor, proving conclusively the actual presence of 'residual pressure.'

"The only point which remains unproven is the actual production status of the rifle. However, I am not particularly concerned about this because the few and simple component parts of the Johnson rifle, together with the tolerances permitted, will adapt it to quantity production. For this rifle has fewer parts by nearly a score than the



Latest military model, Johnson semi-automatic rifle equipped with bayonet and rotary magazine holding ten rounds.

Model 1903 Springfield, and requires no more elaborate tooling-up."

The Light Machine Gun

Marines never do anything by halves. Johnson developed a machine gun in 1937 which has the same action as the Johnson rifle. This weapon can be easily fired from the shoulder, full automatic. It weighs about twelve and one-half pounds, is belt or magazine fed, air cooled, bipod or tripod-mounted, cocked with the bolt open, has only eighty-six parts, quickly detachable barrel, has been fully stripped in fifteen seconds, assembled in twenty-five seconds, fires from 250 to 800 shots per minute, has several essential parts which are actually interchangeable with the Johnson rifle (barrel assembly, handle, extractor, ejector). Though it is a .30 M1 caliber gun, it is almost as light as a Cal. .45ACP-T.S. M.G., and has the same mobility.

Epilogue

The Johnson rifle is now being put into production. The sporting model will probably be on the market late in 1939. It is not improbable that Johnson rifles and machine guns may be used eventually for military purposes. The invention is fully patented throughout the world.

A combination of the Johnson rifle and Johnson machine gun manifestly offers a highly simplified training program. The similarity between these two weapons is such that the recruit who learns the mechanism of one can almost instantly learn the other. The feature of barrel stripping in itself is a major asset. Worn, damaged, and over-heated barrels are no longer a source of great annoyance in combat when they can be so easily replaced.

Captain Johnson is also developing a twelve pound .30 caliber airplane machine gun, and an automatic cannon, both of which have the same basic mechanism as the Johnson rifle.

In time of war, at least, the availability of the Johnson rifle may be utilized to the distinct advantage of the National defense. According to Mr. F. C. Ness:

"With a contemporary semi-automatic in general use by American riflemen, our countrymen would gain a familiarity with this modern type of military weapon which would give us the indisputable asset of an auxiliary supply and a source of commercially produced arms in the same caliber and a corps of experienced users available as instructors in case of a National emergency within the next few years."

Charging the magazine of the Johnson semi-automatic military rifle from a standard Springfield clip. Ten cartridges in the magazine plus one in the chamber. Magazines may also be filled with single cartridges.

XUM

Cooperation Between the Navy and Aviation

ADMIRAL GIAMBERARDINO, *Royal Italian Navy*

Translated by Lieut-Col. P. A. del Valle, U. S. Marine Corps

IN THE consideration of the development of strategical maneuvers up to this point there have been continuous references to the collaboration of the air arm. I believe it to be sufficiently clearly established that aviation must be considered, not as a secondary auxiliary, but as one of the principal means for war at sea, without which the action developed would be stunted, unconsidered, and unsafe.

Let us consider in an orderly manner a few concepts to fix our attention upon the various necessities and possibilities of aerial assistance at sea.

We have already considered the principal concepts upon the matter of scouting performed by airplanes; and the not inconsiderable advantages offered by such a method of securing information of the enemy; as well as certain limitations upon this source of intelligence. It must not be imagined that there can be a continuous and certain surveillance of huge naval formations, even if we limit ourselves to relatively small internal oceans such as the Mediterranean. In any event, night, which does not prevent high altitude bombardment of large, well defined targets, paralyzes systematic scouting; and at most, permits the more or less clear view of a restricted area, such as a naval base or a commercial harbor, by the light of parachuted magnesium flares, at the risk of serious anti-aircraft reaction. At sea, where vision from above is very imperfect during the night, even with a full moon, this same illuminant will give good results only if the scouting aircraft happen to find themselves quite close to a fleet steaming at high speed.

The insuperable nocturnal interruptions being admitted, therefore, daylight appears to be all-important, for then the movements accomplished during dark will be revealed, and the new relative situation of the opposing naval forces becomes apparent. During daylight aerial activity at sea will be great and well-ordered, and the situation will become clear, only to be obscured again the following night. With these alternate changes, rather than disperse the airplanes in the vastness of the seas, wishing to cover every part of it in order to know everything, it is well to concentrate them where they are of greatest importance, that is, upon the enemy's bases, upon obligatory passages, upon areas that must be traversed by our own ships and upon those adjacent thereto from the points where the enemy was last sighted.

We shall examine in detail in the chapter on tactics other employment of aviation at sea; anti-submarine escort; tactical scouting; anti-aircraft defense; fall of shot observation; the laying of smoke screens; and, above all, the attack with bombs and torpedoes.

For the present, in accordance with the action we must take, we may divide aerial collaboration into three distinct forms of employment. The first, which concerns strategic reconnaissance, has a character nearly independent of the movement of the ships themselves, since the planes take off from coastal airports, accomplish their missions, and return to their bases, in accordance with the general plan, or with the general reconnaissance plan as ordered by the naval commander directing sea operations. The second is supplementary and dependent, concerning all auxiliary services in vicinity of the ships under weigh. The third, which concerns the mass attack upon enemy ships, must be timely, coordinated with the movement and action of the fleet itself.

Lacking the first function, the ships would be deprived of the most fruitful source of enemy information; lacking the second, they would be subjected to increased risk in wartime navigation, and would be deprived of accurate long range spotting; without the third, their offensive power would be reduced, and the ships would be denied the perhaps decisive naval-aerial concentration of power at the crucial moment.

Let us now examine into the manner in which the airplanes may execute their three complex functions.

If we limit ourselves to shore based aviation which must radiate according to their missions, it is evident that their activity diminishes in effectiveness as the ratio of their distance from the bases. Their activity ceases when the limit of their radius is reached; and in the last stages must ever be unreliable and uncertain. Outside the circle corresponding to their radius of action, cooperation with the fleet is impossible, and in those areas ships will operate as in the past, without the benefit of their own aviation, and without the opposition of the enemy's; providing the latter is also out of range. Later, as the enemy's bases are approached in the vicinity of their coasts, we reach the zone of effectiveness of enemy aviation, an effectiveness that increases the nearer we approach.

It is evident that, according to the distance and the expanse of the coasts of the two adversaries, the two zones of aerial effectiveness aforementioned may remain separated by a more or less distinct zone of aerial neutrality; or they may merge in greater or less degree one into the other. This advantage of a country that is far removed from its probable enemies is immediately apparent, for an enemy attacking it would be obliged to employ its fleet in a zone where the defender's aviation becomes more and more effective the closer the coast is approached, while its own aviation is inoperative. A situation such as this is enjoyed by Japan, with respect to an aggressive war by the United States or Great Britain.

Perfect aero-naval collaboration does not appear to be possible as long as aviation is shore-based, probably at a distance, and must join the action on time, with the proper types for the performance of the missions required by circumstances. In ships of sufficient tonnage there are carried a few seaplanes, with appropriate gear for their launching, and eventually for their recovery. But something else is required to maintain the services requisite to navigation and to constitute the mass necessary for the various missions upon encountering the enemy. The air service requires a great many planes, all the more when operating far from seaplane bases, for the airplanes must not only consider the flying time required for executing the missions in vicinity of the fleet, but likewise for their return to their bases. This consideration, in addition to the reduced radius of airplanes carrying bombs and armament, and of the uncertainty of the route, due to the movement of the naval units in accordance with eventualities of the strategic maneuver, lead to the conclusion that the zones of effective aerial support are reduced, and hence their assistance is not always timely, efficient, or certain.

Except for this limitation upon aerial support, ships can operate without grave risk only in zones of aerial neutrality, and as long as they succeed in employing the airplanes they carry on board ship for tactical reconnaissance, anti-submarine patrols, and for spotting. But they will be unable to approach too close to the coasts of an enemy well equipped with aviation, lacking the necessary defense therefor, as they must depend solely upon their own artillery and machine guns; not an absolutely efficacious defense against masses of aviation concentrated against them, from different points of the compass, in varying numbers, employing bombs, gas, and torpedoes. The few airplanes carried by the ships could certainly not continue their missions, surrounded and attacked by enemy fighters, and so every bit of aerial support vanishes. Consequently, while the defender disposes of an excellent reconnaissance force, which makes known to him the attacking fleet's every movement, and can make good use of aerial attacks, the attackers are forced to proceed almost blindly, with the sole reconnaissance facilities offered by their light craft.

In substance, even if the naval forces can do without the additional action of offensive aviation against the enemy fleet, renouncing thereby an efficient additional power, they cannot do without the permanent auxiliary air service. Hence it is necessary to increase the number of airplanes, adding to those embarked in the combatant units, others carried in auxiliaries. There now appears, consequently, the necessity for the naval airship transport. However, although this vessel may be able to launch its planes with catapults, it encounters difficulty in their recovery, due to the slowness of the crane, and to the necessity to proceed slowly, or even to stop, in order to take the airplanes on board. Immobility at sea is dangerous because of submarines, and is not always reconcilable with the movements of the fleet to which the transports are attached. The fleet, on the other hand, cannot simply detach itself and leave them to their fate. The naval airship transport can therefor be considered simply a movable seaplane base, which only in exceptional circumstances can function in the open sea, but which is generally best disposed in a nearby harbor handy to the scene of action, where there are insufficient airplanes for the exigencies of the sea flight.

The true and complete solution of the problem might appear to lie in the airplane carriers (as opposed to airship transports) with which the navy must be equipped in order to be properly prepared for the exigencies of a sea flight.

The airplane carrier is eminently a strategic unit, because in substance it is only the vehicle for giving the airplane, which is of limited radius of action, the fullest addition to its radius by naval means, in order to be able to employ it efficiently in the vast spaces of the sea. This solves the problem of transferring the aerial offensive from one side of the ocean to the other, or between the shores of a large internal sea, since the radius of action, in the present development of the airplane, is too limited when it is carrying its bomb load to permit an attack upon a distant target. In the same manner, and with increased number of hours of flight, airplanes launched from such craft can execute extremely long-range reconnaissances.

But the greatest advantage of the carrier is that it makes possible the certain development of the second function of aviation here considered, that is, the uninterrupted air service to the fleet in motion. Airplanes designated as anti-submarine patrols can relieve one another regularly, taking off from and landing on the carrier. Leaving to the airplanes carried on the large and medium combatant ships the spotting missions, at the proper time the carrier will furnish the airplanes for anti-aircraft defense, and for laying down smoke screens.

With carriers at one's disposal it is possible to launch from them the offensive mass of bombardment and torpedo planes, with much greater assurance than would be the case if one relied upon the arrival of shore-based aviation, especially in situations that arise unforeseen.

This unit which typifies the closest aero-naval collaboration appears at first glance to be capable of standing up almost alone under the pressure of war on the sea. It may execute offensive and defensive missions and reconnaissance, without fear of enemy aircraft which it can combat with its own fighters; nor of submarine, which it can discover and bomb with its airplanes; nor even of surface ships, which its own airplanes can sight at long distances, permitting the carrier to use its speed to avoid them, sending its torpedo and bombing planes to attack them. However, its action would be nearly always in withdrawal, without its ever being able to impose its will and consequently without being able to develop its own strategic plan, although able to oppose that of the enemy.

In spite of the advantage of speed, and of being able to extend its reconnaissance to long distances with its airplanes, in restricted areas and almost obligatory routes, such as found in some portions of the Mediterranean, the carrier could be surrounded by surface ships and submarines, without being able, by the power of its own aviation, to make its way through. True it has its own guns, but they are only for use in extreme cases, as any

XUM

gun battle, implying the possibility of receiving hits itself, might prove fatal to the carrier, by damaging its flying deck, sole means of launching and recovering its aviation which represent its true and only strength. And then, too, the fighting airplanes carried by this craft cannot be comparable in numbers and efficiency to those of a good aerial armada (shore based) which by virtue of its position is enabled to concentrate its mass against the carrier.

In conclusion, the carrier, that imperfect union of the light warship and the air arm, has such inherent vulnerability, and such limited offensive power, as to be incapable of employment by itself, and must be considered simply as an auxiliary or a part of the whole naval force. One may argue similarly about the cruiser-carrier, another hybrid bred of conflicting requisites which one would not know how to employ in a naval engagement. Having launched its airplanes it must join the battle against opposing cruisers, and any damage sustained in the gun fight by its flying deck renders the recovery of its airplanes impossible. These would have to make for the nearest land, or perish.

With absolute division of functions the carrier would follow the main body of surface craft at a distance. It would require, naturally, the escort of light surface vessels, like any other naval unit. Thus it could carry on its functions as a movable airport, receiving its orders from the flagship for its best aero-naval cooperation, Not only must the carrier not join the battle line, but it must always remain as far out of gun range as circumstances dictate.

The carrier's light escort, which should have no other mission than to protect it at all costs, must never allow the enemy's small craft to close within gun range. At night they might steam closer to the carrier, spreading out again at daylight, never getting too far away from it.

It is obvious from our observations that the carrier should never be employed upon missions requiring slow speed, as in directly escorting a convoy. Nor should it be employed in making a demonstration, as in approaching an enemy coast to bombard populous, military, or industrial centers. On the return flight its airplanes would undoubtedly be followed by those of the defense, who would not let such an inviting and important target as the carrier get away from them. The carrier is so vulnerable, and yet so essential for close and timely air support of the fleet, that it cannot be lightheartedly diverted to secondary missions of doubtful military value.

The tactical employment of this type of ship should be treated separately, but we cannot make an exception to the orderly unfolding of the text and point out immediately each disadvantage of capital importance which influences the strategical maneuver and which may even invalidate the convenience of possessing carriers.

In order to accomplish its maximum effort at the opportune moment the carrier should carry upon its deck the maximum possible number of airplanes, thus permitting its massed air force to take the air in a very short time. But for the recovery, considering the time required for consecutive landings, and for stowing the airplanes after landing, a considerable time is required, during which the carrier must head into the wind. This obligatory restriction upon its course may not always coincide with the proper requirements of its maneuver after a tactical engagement, especially in restricted waters. It is even possible that the course taken for the recovery of its airplanes may be directly contrary to that which the carrier should take to avoid dangerous proximity to the enemy.

But the real weakness of the carrier is organically the negative element, which perplexes its most enthusiastic supporters. Any damage by gunfire or bombing of the vast flying deck renders it impossible to launch or recover the airplanes, while the large stores of gasoline carried, and the airplanes themselves, present a tremendous fire hazard, especially under enemy attack. This superb ship, aspiring with its new means to a supremacy on the sea, may rapidly change into a huge bonfire upon the unconquered ocean, and be forever lost without having performed the smallest service. Of the ephemeral types born of the disordered technical thinking following the World War, this one is without a doubt the most vulnerable, the most illogical, and the one least adapted for movement and for victory in the fiery atmosphere of a modern sea fight. Perhaps they can find employment in the ocean, remaining at the greatest possible distance from the actual naval conflict, but in restricted waters, and in the vicinity of the main body, they are so subject to attack as to render them unlikely to perform any service of value.

And now what shall be substituted for the airplane carrier as now conceived and constructed, in order to obtain an equally close cooperation between the warships and airplanes at sea?

This question awaits an answer from human ingenuity.

Meanwhile, although the present carriers might be used in the ocean, keeping them as aforesaid at a great distance from the operating fleet, in restricted seas it will be necessary to substitute for them shore-based aviation, capable of furnishing in every case, the regular services around the ships under weigh, and for the concentration of their masses for employment in tactical combat. This is facilitated by modern airplanes, with their surprisingly increased radius of action and their capacity for carrying armament.

A careful study of the probable strategic area in restricted seas will enable us to select suitable landing fields, well located for any maneuver, and to organize in addition to these, many additional fields for the purpose of accommodating a huge mass of aviation. Each of these prepared areas would be the equivalent of several airplane carriers, and would be unsinkable and not very vulnerable, due to the discretion of fields and airplanes, which on board ship are necessarily concentrated in a restricted space. In every strategic maneuver, the nearest group of airfields would be in a position not unlike that of the carriers with respect to the main body in the ocean, with the added advantage for the admiral that he does not have to worry about maneuvering his distant carriers with respect to the fleet, nor to cover these weak

(Continued on page 59)

Good-by to Squads Right

NOW that the Infantry is throwing off the nineteenth century organizational straight-jacket, it intends to go further. It proposes to free itself from the mental and physical shackles imposed by Frederician parade-ground evolutions. A new drill, now being worked out will greatly simplify the soldier's work in the new regiment. But the new drill will do more than merely simplify the soldier's body movements; it will free his mind for more important things. This résumé gives the highlights of the new drill. There will be some minor changes during the testing period but these, very likely, will not be greatly important.

The Infantry Board is now testing the drill at Fort Benning. The basis of the drill is the squad of variable size. The new rifle squad has twelve men, and there are other squads of different sizes in the regiment. In peace or war none of these squads will always be full strength. Hence the new drill takes account of this variation. Since the column-of-threes drill, tried out in 1932 in our own army and now used in the French and German infantry, was satisfactory in many respects, and allowed for variation in unit size, it has been used as the basis for the new drill.

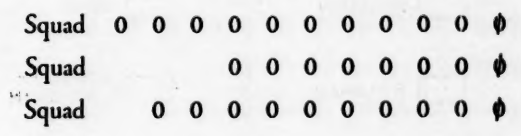
The new drill can be used by any type of organization. Future changes in the size of a unit or in its weapons will not require changes in drill regulations. The new drill is even so flexible that it can be used in column of fours by any unit whose squads are not in multiples of threes.

The new regulations include the following chapters:

The Soldier (Positions, Steps, and Marchings)
The Soldier with Arms (Manual for Rifle, Automatic Rifle, Pistol, Guidon, Color, and Saber)
Drill for Foot Troops (Squad, Platoon, and Company)
Drill for Units with Animal-drawn Carts or Pack Animals
Drill for Units with Motor Carriers
Drill for Motorized or Wagon Units
Formations of the Battalion and Regiment
Ceremonies (Reviews, Escorts, Parades, Inspections, and Funerals)
Battlefield Formations and Movements
Signals

Positions, steps, marchings, and manual of arms remain much as they are now. The old *Parade Rest* has been eliminated. *Port Arms* is to be executed in two movements to avoid throwing the rifle and grabbing it again while it is in the air. *Right Shoulder Arms* is not executed as part of *Forward March*. Instead, rifles are to be brought to the right shoulder by a separate command before a movement starts. This avoids the awkward operation of stepping off and trying to get the rifle on the shoulder at the same time. It also gives the new rifle company, which will frequently carry its 60-mm. mortar and light machine guns by hand, a preliminary command to bring weapons and equipment to the carrying position. At the *Halt* from marching, rifles will remain at *Right Shoulder* until *Order Arms* is given. This is to eliminate the ragged execution of the manual often seen when large commands are halted.

The chapter on "Drill for Foot Troops" covers the drill for any unit on foot without any special transport. The squads form in single rank with the leader on the right. If the platoon has three squads, as in the new regiment, the squads form one behind the other.



A four-squad unit forms in four ranks. The number of men in the squad is immaterial. To form *Column*, the platoon executes *Right Face*. With a few simple additional movements such as *Column Right* (*Left*), *Open Ranks* (for inspections) and *Take Interval* (for pitching shelter tents), this is virtually all there is to squad and platoon drill. For the company, there will be a few additional movements for the forming and moving in mass formations. These are all simple, and precise.

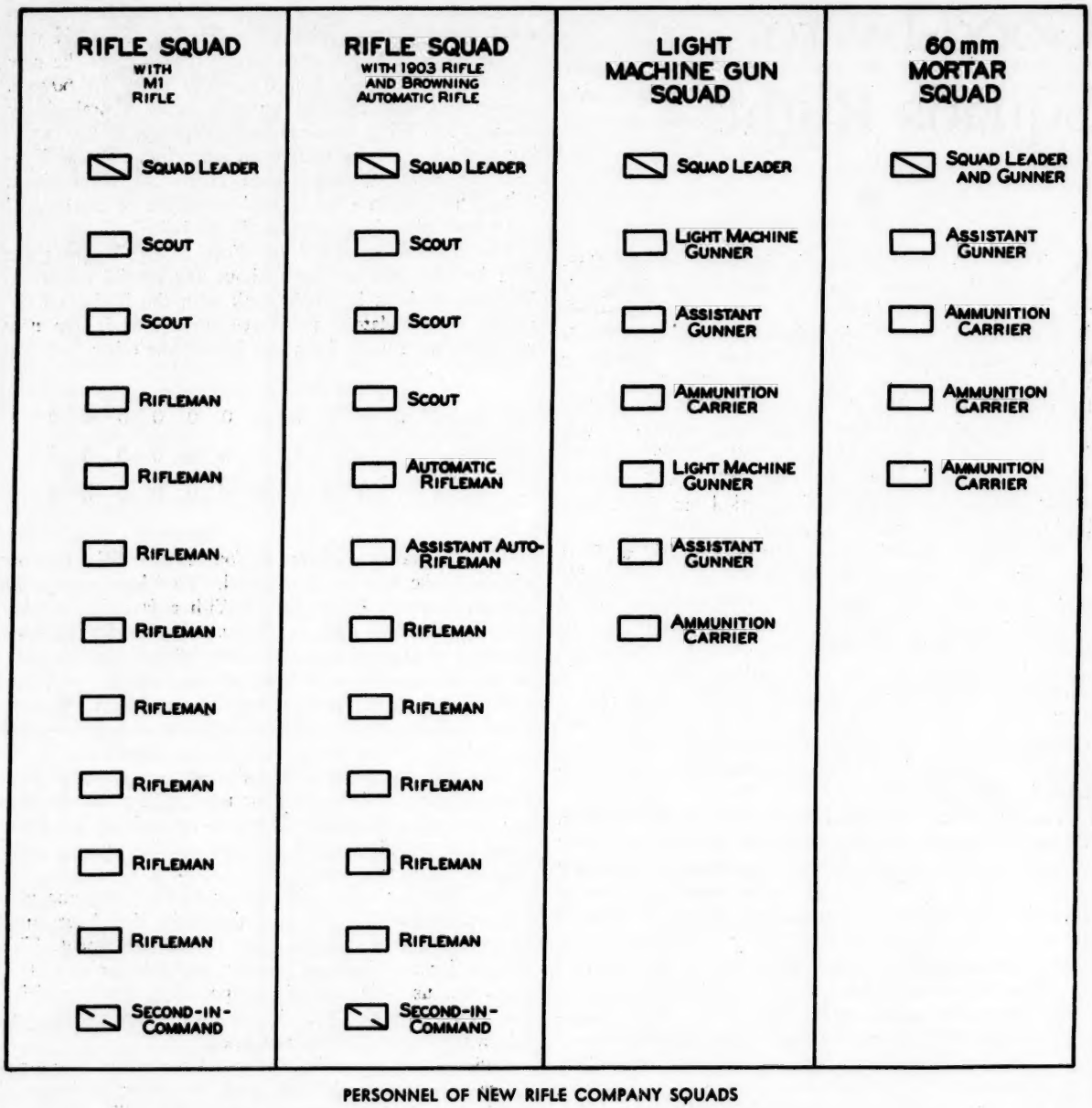
The drill for units with animal-drawn carts or pack transportation and the drill for units with motor carriers are practically the same. If a cart- or pack-equipped machine-gun squad received a motor carrier, the unit will not have to learn a new drill.

The drill for units with motor carriers contains provisions for forming and marching units that have small motor carriers to transport their combat equipment. This drill is for machine-gun, mortar, antitank, or any other units that use this type of transportation. For simplicity, the "Foot Troop Drill" is used as a framework into which the motor carriers are fitted.

Officers and men who are transferred from rifle units to weapons units with carts, pack, or motor carriers, will not have to learn a different close-order drill. The same commands and the same formations and movements are used, with only very minor modifications. Technical drills for the setting up, loading, and firing of weapons, such as the machine gun, mortar and antitank guns, and duties of the gun crew, are not included in this drill. These will be covered in special pamphlets dealing with each weapon.

The drill for motor or wagon units is simply a means of forming and moving units composed entirely of vehicles without any accompanying foot troops. This drill is for motorized service companies and weapons units in which the men all ride in vehicles, as distinguished from units with motor carriers in which the crews walk. Here again the principles are simple and flexible, but definite. The movements are limited to getting the vehicles into a

XUM



PERSONNEL OF NEW RIFLE COMPANY SQUADS

column or mass formation where they can follow a leader or do as he does.

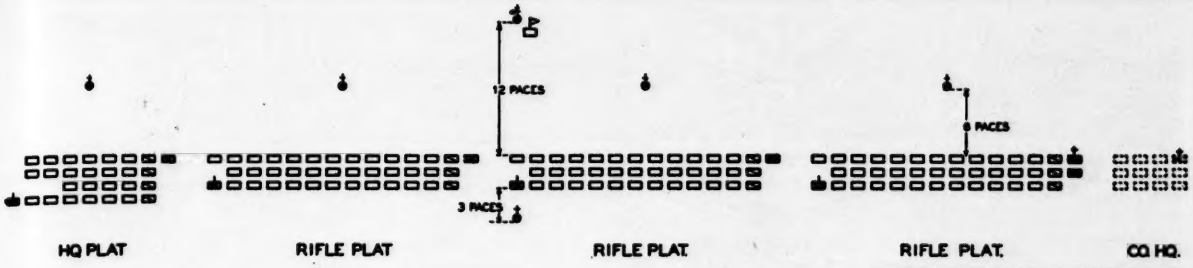
Throughout, a unit employs the drill which fits its transportation. Thus, the rifle platoons of a rifle company will use the "Foot Troop Drill" while the headquarters platoon, which has 60-mm. mortars, may use the drill for units with motor carrier. Any combination will work.

All the drills are especially adapted to combat use. Extended-order drill has therefore been eliminated and replaced by some simple provisions for handling small units on the battlefield, given in the chapter entitled "Battlefield Formations and Movements."

Ceremonies have been standardized with the review as the basic ceremony.

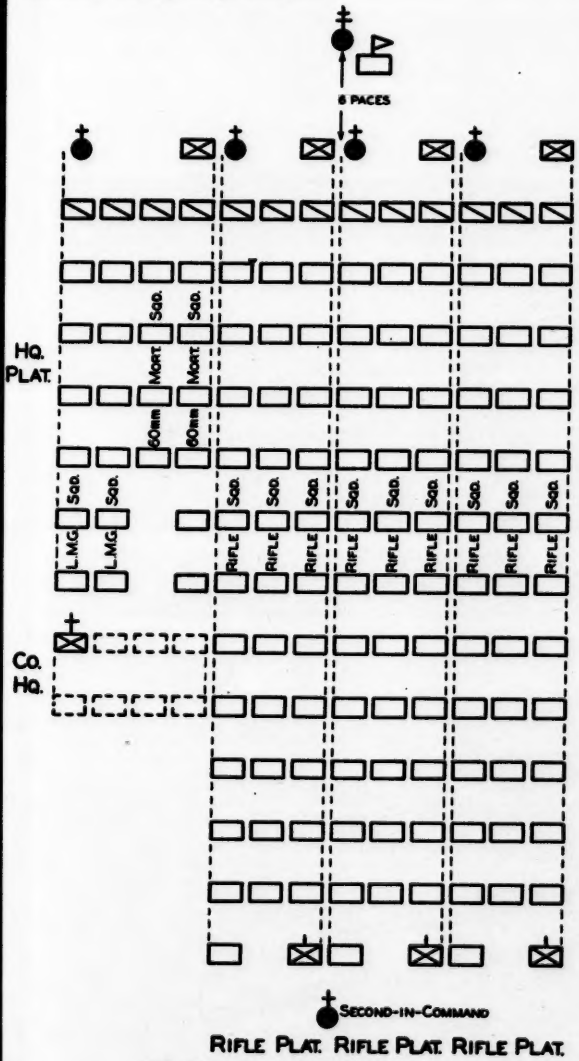
Throughout the new drill, also, every effort has been made to avoid special procedure and special cases. General provisions applicable in all cases have been used to the maximum.

Although the new drill includes drill for motor carriers and motorized units, the number of pages required to cover it is about half the number used for the old drill. This reduction is due to the arrangement of the drill into four types based on transportation (foot, animal carts, motor carriers, and motorized), whereas the old drill is made for organizations by name (rifle company, machine-



gun company, howitzer company, etc.). This would lead to endless repetition with the new organization. Ceremonies, too, have been arranged so that provisions for a review will apply equally to a battalion or a division.

At the same time, this new drill lacks none of the elements of precision and movement that make for disciplinary training. It eliminates all movements like *Squads Right,* which never have been (and never could be) executed exactly as prescribed.



The Company in Mass Formation

The rifle company in line. To march to the right in column it executes "right face" and moves off.

LEGEND

- COMPANY COMMANDER
- PLATOON LEADER
- FIRST SERGEANT
- PLATOON SERGEANT
- GUIDE
- GUIDON
- SQUAD LEADER

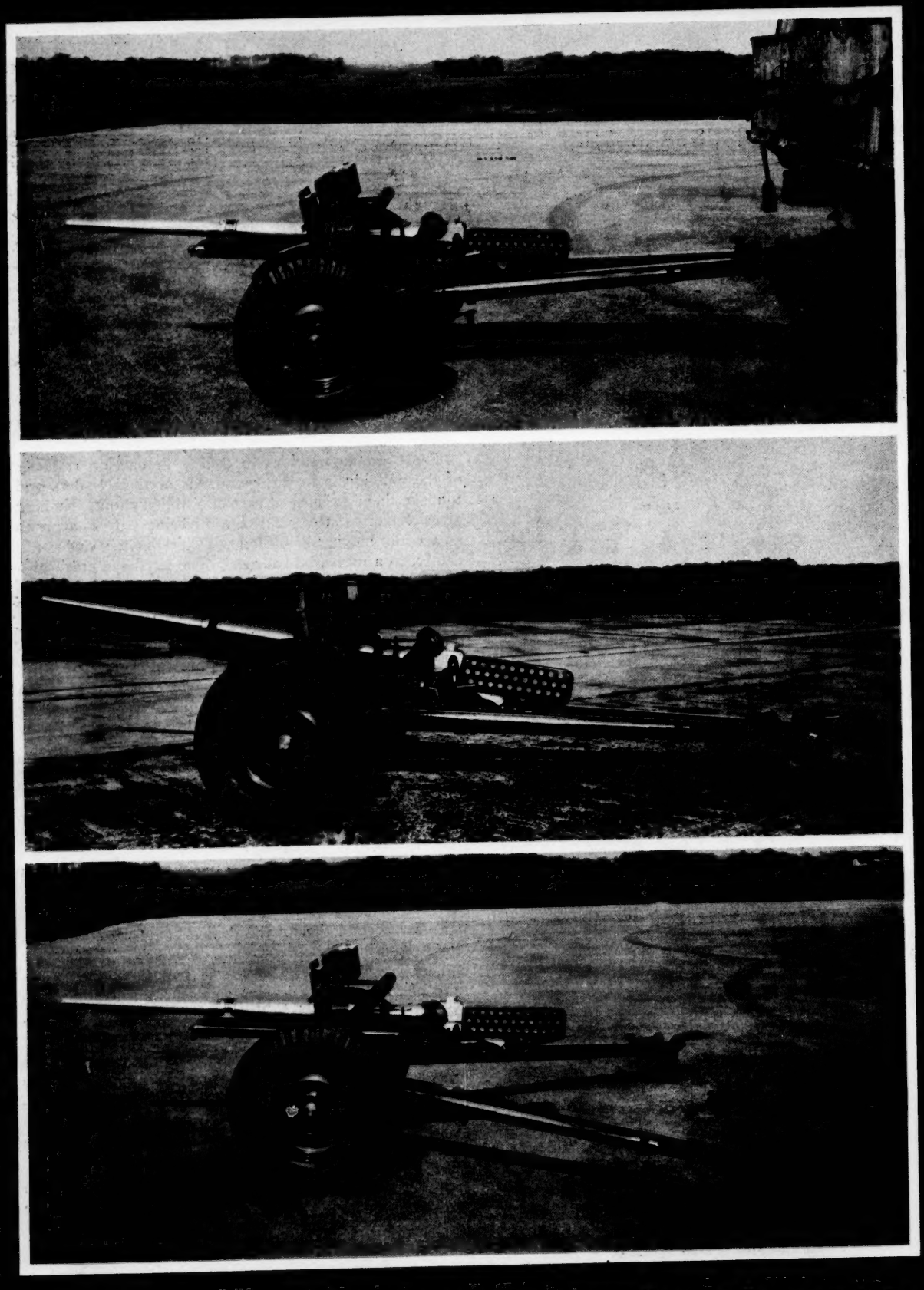
The psychological idea in drill is to develop response of the individuals to the commands of their leaders and to make them an integral part of a military unit. Nothing gives a man so strong a feeling of being part of a group as actually moving in unison with it, smoothly and confidently, to a measured cadence. The rhythmic crash of a hundred boots on the pavement is the echo of footfalls of the herd, and individuals still respond to the effect and sense the security, power, and unity of action that is implied in it. For this reason, close-order drill is a powerful integrating factor. Even the ancient Egyptians knew this. But when the drill is so complicated that a man fears every second he will do something wrong, something that will throw him out of step with the herd and thus indicate to everybody else that he really doesn't belong to it, then it becames an irksome and even a disintegrating process. It is doubtful in our drill if the slower-witted soldier ever became confident of his drilling. This made him feel, at least subconsciously, that he did not fully belong.

At the same time, learning the difficulties of the old and complicated evolutions took so large a part of training time that cadenced drill too often assumed an importance far beyond that of the drill actually used in battle. The new drill fully meets requirements as a disciplinary and integrating exercise but, most important, the formations of the new drill develop smoothly and logically into those of battle. This is still the main business of soldiers.

An army in a mechanistic age—one striving with might and main to adapt newly invented devices and machines to war uses—cannot afford to spend its time laboriously perfecting a drill inherited from the past and having little connection with modern battle formations. All energy needs to be focused on combat efficiency, and drill is only valuable so long as it helps to develop that.

This age we live in is unique. It has no equivalent in the past. Our drill—and all else—must square with the present. This our new drill does.

—Courtesy The Infantry Journal.



Top—Coupled to truck. Center—Traveling position. Bottom—Firing position

The New Antitank Gun

The 37-mm. gun, M-3, on the 37-mm.-gun carriage, M-4, has been adopted as the standard antitank gun for infantry. This weapon gives the infantry regiment an antitank weapon that can cope with any foreign light or medium tank known to date. Its great accuracy, simplicity of fire control, and superior penetration, and its splendid mobility with its prime mover, make this one of the finest weapons of its type ever developed.

The gun and carriage complete weigh about 850 pounds. It is trailed behind a 4x4, half-ton truck. On roads the gun will trail at speeds of forty to fifty miles an hour without any side-sway or skidding. Across country the performance of the prime mover and the trailed gun is unequalled by any similar type of weapon. Gullies, shell holes, mud holes and slopes of twenty-six degrees are negotiated with ease.

When shell fire or the near presence of the enemy necessitates movement by hand, the crew can readily move the gun forward into position over varied and difficult terrain. The gun can be manhandled through woods, across deep ditches and shell holes, and across any stream whose bottom affords footing for the members of the crew. Streams as deep as fifty inches with sand or other hard bottoms are not obstacles to forward movement by hand.

The gun commander is responsible for movement of the gun into firing position, selection of targets, and control of fire. The gunner, or No. 1 of the squad, tracks the target, and fires the piece. He is assisted in maintaining a high rate of fire by No. 2, who loads the piece. No. 3 maintains an adequate supply of ammunition within reach of the loader. Other members of the squad bring up ammunition from the truck or local dump.

The elevating and traversing controls and the trigger and sight are so arranged that the gunner can sight, track, and fire his piece simultaneously without ceasing any of these necessary operations. These operations and the operation of loading are so simple that a crew with limited training can fire twenty-five rounds per minute. Well-trained crews should easily reach thirty to thirty-five rounds per minute.

The gun will have two kinds of ammunition. The solid-shot, armor-piercing projectile will penetrate the armor of any known light or medium tank at a range of a thousand yards, even though the projectile strikes as much as twenty degrees from normal impact. A powerful high-explosive type of shell is being developed for use against personnel and enemy machine-gun nests.

The gun crew is protected from long-range small-arms fire and shell fragments by a shield of armor plate which extends clear across the space occupied by the operating members of the crew. This shield has brackets for attaching camouflage material. Camouflaged with materials that blend with the gun position, the weapon is difficult to detect until it actually fires. Concealment from air observation can be obtained by using a suitable camouflage net.

The tactical uses of this splendid weapon are to be developed by extended service tests.

—Courtesy The Infantry Journal.

BOOK REVIEW

A History of the United States Marine Corps.—By Clyde H. Metcalf, Lt. Colonel, U. S. Marine Corps. Large 8vo., 580 pp. With 24 illustrations and maps. Published by G. P. Putnam's Sons, 2 West 45th Street, New York.

"From the Halls of Montezuma to the Shores of Tripoli" the Marines have always been in the thick of things when trouble started, and in Lt. Col. Metcalf's exciting narrative of their activities, from the Revolution to the present war in China, the reader will find all the stirring drama and hair-raising adventure that have always played so large a part in their turbulent existence.

The Marines, firing from the main top, were among the staunchest fighters John Paul Jones had with him aboard the *Bonhomme Richard* when he engaged the *Serapis* in one of the bloodiest naval duels on record. With Stephen Decatur they brought to terms the murderous Barbary pirates. In the face of withering rifle fire they surged up the heights of the Castle of Chapultepec in the most thrilling battle of the Mexican War. The Marines took a leading role in Farragut's capture of New Orleans, an operation which dealt a staggering blow to the Confederacy. First ashore in Cuba at the opening of the war with Spain, they captured the enemy's fortifications at Guantanamo Bay, which is still a naval base in our possession. Their advance in the appalling holocaust of Belleau Wood was one of the outstanding achievements of the Great War. In the intervals of "peace," the action of the Marine Corps in the Philippines, China, Nicaragua, Santo Domingo and Haiti has made it obvious that the statement "The Marines have landed and have the situation well in hand" was no mere catch-phrase. They have seen more fighting in more places than either the Army or the Navy, and the story of their heroic past is a fascinating one.

Lt. Col. Cylde H. Metcalf has a grasp of detail scrupulous enough to satisfy the expert; a clear, considered judgment of historical values; and above all a feeling for the highly exciting, intanglible quality that has made the Marine Corps perhaps the most colorful of our military units. The author is the officer in charge of the Historical Section of the U. S. Marine Corps at Headquarters in Washington, D. C.

XUM

New Puppet Paradise

COLONEL J. C. FEGAN, U.S.M.C.

MOST of the old "China Coasters" will tell you that they are fully convinced that all over the Far East rumors are truly persistent that this year will bring the long-expected armed clash between Soviet Russia and Japan. There can be no doubt that Soviet Russia would not take the initiative in that direction. But since the transformation of the Konoye cabinet into the Hiranuma government the military in Tokyo are stronger than ever before. In exercising the new power, the Kwantung Army will have a distinct edge among the various rival factions of the Japanese fighting forces. The Kwantung group maintains one of its leaders, General Itagaki, in the position of War Minister in Tokyo. It enjoys by far the strongest influence in the Japanese Army Special Service. It controls two of the puppet states created on Chinese territory: "Manchukuo" and "Meng-Chiang" (Inner Mongolia).

The Kwantung group of the Japanese Army is dominated by the anti-Russian faction of the Japanese corps of high officers. Demands from that faction to limit the engagement of Japanese forces in the China war and instead to start upon a war of aggression against Russia are being put forth with increasing persistence. Particularly strong is the agitation in favor of an attack upon Outer Mongolia. That country, though under nominal Chinese sovereignty, is bound to Soviet Russia by a defensive military alliance and for all practical purposes falls within the Russian sphere of influence. Russia, for political as well as strategic reasons, could hardly suffer Japan to seize Outer Mongolia. It is also in this direction, that Nippon-Soviet conflict looms.

Since the outbreak of the present China War, the Japanese have been driving a spearhead westward in the direction of Outer Mongolia. This spearhead is the Japanese effort in the new puppet state "Meng-Chiang," officially termed, in the English language, "The Mongolian Borderland," and generally known as "Inner Mongolia" or "Mongokuo." High officers of the Japenese Army Special Service a short time ago guided a party of Peiping foreign journalists through that puppet state and these officers in answering questions, left no doubt whatsoever of their intentions regarding Outer Mongolia. Teh Wang, nominal figurehead of the Kalgan puppet regime declared recently "In due time Outer Mongolia will be reunited with its brethren in the greater (made-in-Japan) program of Mongol revival." Japanese Colonel Yokoyama, chief of the Special Military Mission at Suiyuan-Kweihua, said that he thought "Outer Mongolia should be absorbed into the present autonomous state of Teh Wang."

In these circumstances, Teh Wang's puppet state deserves closer attention than it has been accorded thus far. Theoretically, on the Japanese maps, "Meng-Chiang" is a buffer state situated between "Manchukuo" in the east, Outer Mongolia in the north, and northwest, the Great Wall in the south, and the western sections of the great bend of the Yellow River. The "Mongolian Borderland" is supposed to include the Ordos desert country within the Hwangho Bend and the Gobi-skirted region of Wuyuan, but these territories still remain to be conquered from the Chinese who ferociously defend them. The westernmost bases of the Japanese here are Paotou, terminus of the railway from Peiping, and Pailing Miao, where the Nipponese began their intrigue with Teh Wang in 1936.

The Chinese opponents of the Japanese in these parts, have their base at Wuyuan, Ninghsia, Yulin, and the Pienkuan (northwestern Shansi). The Chinese force at Pienkuan is commanded by General Fu Tso-yi. General Ma Chan-shan is in command at Yulin and Ninghsia, both on the Great Wall and are often bombed by Japanese airplanes, although it is said that little damage has been inflicted by these raids. The strongest Chinese forces appear to be concentrated in the Wuyuan region under General Ma Hu-ping who, according to Japanese estimate has about 12,000 soldiers under his command. Of these 2,000 are Chinese Moslem troops. Ma Hu-ping is guarding one of the so-called Red Routes which cross the Gobi Desert from Urga and run to Ninghsia and from there to Lanchow or Sian. The easternmost of these routes skirts Wuyuan and, according to the Japanese, it has quite a heavy Sino-Russian traffic. For many months, the Nipponese have been declaring that they "expected" to take Wuyuan in the near future, but these expectations have not yet materialized. Wuyuan is of importance also as the chief Inner Mongolian center next to Paotou of the wool caravan traffic.

The "Meng-Chiang" puppet paradise boasts officially of a population of about 7,000,000 people of whom, however, practically less than half appear to be actually under Japanese domination. The chief hold the Nipponese have in the territory is the railway line from Peiping through the Nankow Pass to Kalgan, Tatung, Suiyuan-Kweihua and Paotou. These are the more important cities in the region under Nipponese occupation. The railway line from Tatung to Taiyuan, capital of Shansi Province runs through Chinese-controlled territory and, therefore cannot be operated by the Japanese. But passenger and freight services on the Peiping-Paotou line appear to operate fairly well and regularly, though on a small scale. The management of this road is in the hands of the South Manchuria Railway Company.

The cities along the line did not suffer much war damage, and conditions there have returned to what is normal under Japanese occupation. The Suiyuan-Kweihua region is said to have 120,000 people. Paotou 90,000, Kalgan 80,000; and Tatung 70,000 inhabitants. Except for Paotou, these figures are somewhat above the pre-war figures. There has been a certain influx of Chinese

riksha-coolies and laborers from inside the Great Wall, and of Japanese civilians. There are now about 10,000 Nipponese citizens in the territory half of whom have settled in Kalgan alone, while about 2,000 live in Tatung, more than 1,000 in Suiyuan, some 500 in Paotou, and about 400 in Chuanghua.

These Japanese civilians have opened shops, inns, hotels, opium dens, brothels and so on, or are agents and employees of the many new Japanese companies engaged, partly under "Mongolian" denominations, in the exploitation of the economic resources of "Meng-Chiang." These resources are actually as well as potentially considerable. They are chiefly three: Coal, iron, and wool. The two mineral deposits are to be found in the southeastern section of the territory in those parts of Southern Chahar and Northern Shansi which are sandwiched between the inner and the outer lines of the Great Wall directly to the west from Peiping. The wool is forthcoming from the steppe regions beyond the Great Wall, and largely from regions outside the present zone of Japanese occupation. These economic resources have all been seized and are now being exploited by the Japanese exclusively.

The Tatung coal fields is the chief object of the Nipponese exploitation. They are estimated to hold about 12,000,000,000 tons of good coal in an area of 2,797 square miles. Prior to the war, about 260,000 tons of coal were mined there annually. The Tatung mines have been turned over to the South Manchurian Railway Company and now are said to be worked by 4,000 laborers under Japanese engineers. The daily production is said to have reached about 2,000 tons at the end of last year. But the Japanese dream of alleviating the coal shortage in Japan by large imports of Tatung coal has not yet come true. Shipments of Tatung coal to Japan have remained insignificant. The freight capacity of the existing railway is much too small and the roads down to the coast are much too unsafe to allow coal transports from Tatung on a large scale. The modernization of the mines to allow a further large increase in the output and the construction of a new railway directly down to the coast, however, would require a capital outlay of Y240,000,000 of which Japan at present is incapable.

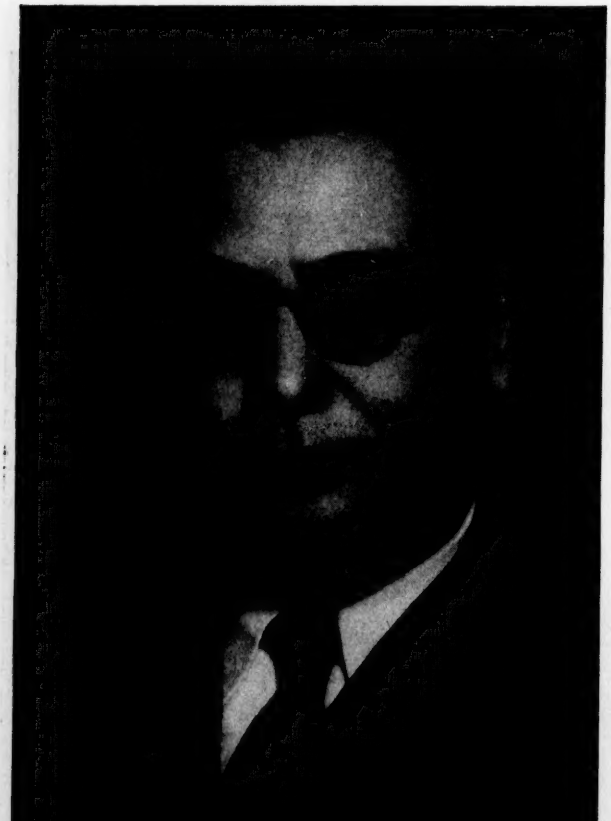
The other great mineral resource of "Meng-Chiang" are the iron deposits at the Lungyen Mine. The mine is situated northeast of Chuanhua, close to the Hopei provincial border and consists of a series of hills near Yentungshan, Pangkiapao, etc. These are estimated to contain not less than 100,000,000 tons of iron ore. The exploitation of the Lungyen Mine has been entrusted to the Fushun Collieries, a subsidiary of the South Manchurian Railway Company and Manchurian Heavy Industries Corporation. The present daily output of ore in Lungyen is reported to be 600 tons. There are similar transport difficulties as for Tatung coal. Part of the ore

GENERAL HATA—STAFF JAPANESE ARMY AND FOREIGN CORRESPONDENTS

mined in Lungyen is of late being smelted in the suburbs of Peiping in the repaired iron foundries at Shihching-shan where the first of a few new blast furnaces installed by the Japanese was ignited shortly before Christmas.

The third of the economic riches of "Meng-Chiang" is wool. Before the war, about 35,000,000 pounds of wool were annually exported via the Paotou-Peiping Railway. Most of this wool, however, came from Kansu and Chinghai (Kokonor) by caravan or down the Yellow River in boats to Paotou, chief wool trading center in Inner Mongolia. The Japanese occupation temporarily interrupted this transit trade, but during the past year it appears to have been partially restored. Shortage of supplies in a number of industrial goods simply compels the Chinese territories west and southwest of Paotou to barter with the Japanese for such products, with wool given in exchange. To a certain extent, the wool trade of Paotou has been revived.

The total foreign trade of "Meng-Chiang" is not negligible. Imports last year valued Y60,000,000, according to Japanese statistics, but exports are reported to have attained about Y150,000,000 in value. That means that "Meng-Chiang" exported half as much goods as Shanghai. But practically all of this trade is in Japanese hands. European and American merchants have been virtually excluded from transacting business in the territory. At first Japanese companies were granted monopolies in all important branches of Inner Mongolian trade, and when last autumn these monopolies were officially discontinued following America's protest, strict foreign exchange control exercised by the Yokohama Specie Bank was substituted. This control is managed in a way so that it would be prohibitive, for non-Japanese traders as far as direct trade of westerners with western countries is concerned. It is not applied to the Japanese Mongolian trade since "Meng-Chiang" has been proclaimed part of the yen bloc. A puppet "Bank of Mongolia," financed with Nipponese bank credits is circulating a fictitious currency characterized by its inconvertability and its absence of bullion of foreign exchange reserves.



DR. S. KANAI

The organizer of that regime of economic exclusiveness and exploitation for the Nipponese is the High Japanese Adviser to the "Federal Council of the Mongolian Borderland" the well-known economist Dr. S. Kanai. He has a number of very capable Japanese assistants who occupy 17 key positions of the total of 90 higher posts of civil officers under the "Federal Council." This council is a replica of the Peiping "Provisional Government" and the Nanking "Reformed Government." Prince Teh is the Chairman. There are six "ministries" namely, General Affairs, Economics, Finance, Communications, Social Welfare, and Public Safety. They are occupied by three Chinese of the Wang Keh-ming type, and two Mongols.

This central puppet regime of "Meng-Chiang" has but very limited functions. There is neither a "federal army" nor a "federal police." There are no "general affairs" to be managed except the manifestations of "joy" on anniversaries. There is no ministry of Foreign Affairs, and the S.M.R. is managing the communications. The Japanese military authorities themselves explained to the group of foreign journalists shown around in the area last month, that for all practical purposes the "Federal Council" is but an economic and financial superstructure. Since all the economic and financial affairs in "Meng-Chiang" are in Japanese hands, the part played by the "Federal Council" is actually restricted to promulgating the laws, regulations, and ordinances which "authorize" Japanese business men to do what they chose and which bar similar privileges to the westerners.

The "Federal Council" is considered a superstructure, because "Meng-Chiang" is supposed to form not one single country, but a "federation" of three different countries. These three "countries" are "Chanan" (South Chahar) with the capital Kalgan and including the Lungyen Mines; "Shin Pei" (North Shansi) with its capital in Tatung, center of the coal mine district; and the "United Leagues of Mongolia," beyond the Great Wall and with its capital in Suiyuan, now termed by the Japanese Hoho-hoto and by the Mongols Koko-Hoto. Kalgans serves also as the "federal capital." These three "countries" each of which is supposed to have an "autonomous government" with a chairman, as vice-chairman, and four "ministries" (departments) of General Affairs, Social Welfare, Finance, and Public Safety.

"The United Leagues of Mongolia" have a fifth "Ministry for Stock-Farming." Chinese traitors are heading the puppet government of South Chahar and North Shansi, while Teh Wang and other Mongols are functioning as leaders of the "United Leagues of Mongolia."

The Tatung and Kalgan puppets are in a position similar to that of the Peiping "Provisional Government." Their task is to assist the Japanese in administering their territory. They have police forces commanded by Japanese instructors, but no army. In the third puppet country, in the "United Leagues of Mongolia," however, there is an army, known as the "Mongol Army." Its commander, is the puppet general Li Shou-hsin, vice-chairman of the "United Leagues of Mongolia," who commands about 10,000 men of whom two-thirds are Chinese and one-third Mongols. This army is co-operating with the Japanese forces against the Chinese national troops in the Wuyuan area. The true Mongols of the "Mongol Army" are said to have proved reliable, but several of the Chinese units of that army staged a number of mutinies.

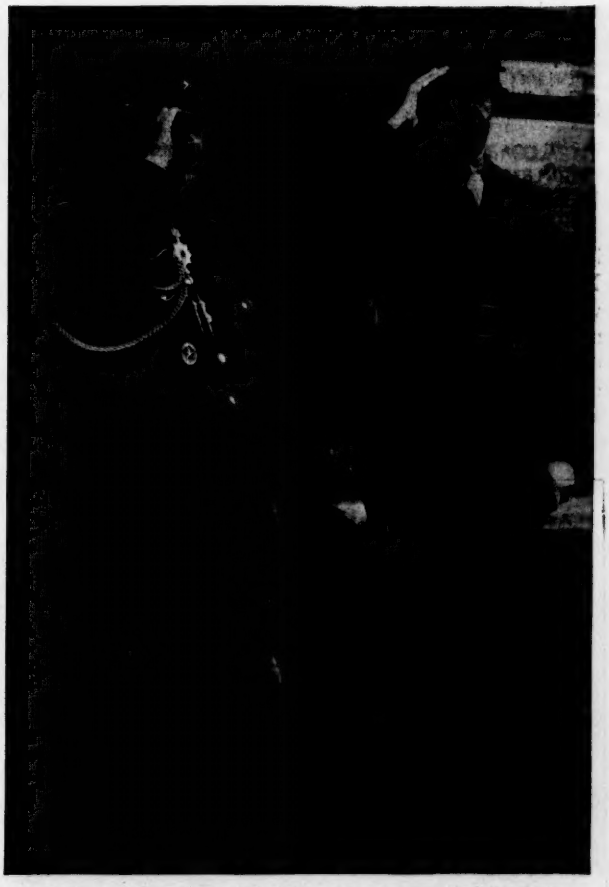
The "Mongol Army" is nothing more than one of the various baits, by means of which the Japanese in "Meng-Chiang" are trying to lure the Outer Mongolians. The other baits are Teh Wang and his fellow Mongolian princelings serving as figureheads of the "United Leagues of Mongolia." Teh Wang, otherwise known as Demchik Domlop, is in his own right the hereditary ruler of the West Summit Banner of the Silongol League. There are four other leagues of Mongol tribes in "Meng-Chiang": the Chahar League, the Bayen Tala League, the Ikechao League and the Ulanchap League. The two latter, however, have not yet given any indication that they want to have anything to do with Teh Wang and the Japanese. As the made-in-Japan successor to Genghis Khan, Teh Wang to all the Mongol tribes outside the Japanese zone of occupation appears to be nothing else but a ridiculous pretender providing nominal cover for the Japanese appropriation of the country and its resources.

The Mongols are not a stupid people. They understand perfectly well that if the Japanese really wanted the resurrection of Mongol power they would have to carve out from "Manchukuo" the whole western portion of that puppet state. For it is there that lives the majority of the Mongols, some 1,500,000 according to Japanese figures. In Outer Mongolia there are scarcely 1,000,000 Mongols, and in "Meng-Chiang," "The Mongolian Borderland," there are only 600,000 Mongols, according to Japanese estimates. Of the population of "Meng-Chiang" the vast majority is made up of 6,400,000 Chinese. Of these, about 2,000,000 live in the North Chahar and a similar number live in North Shansi puppet states. In the territory of the "United Leagues of Mongolia" itself, there are 2,400,000 Chinese, outnumbering the Mongols by four to one.

"Meng-Chiang" thus is by no means a Mongol but a Chinese country. Teh Wang is a representative of the population of "The Mongolian Borderland" as is the Changchun puppet emperor of the people of "Manchukuo." The Japanese Kwantung Army west of Jehol only repeated the puppet state pantomime which was staged in Manchuria years before, catering for the Mongol instead of for the Manchu minority. Without the presence of the Japanese forces in "Meng-Chiang," its "Federal Council" and its three "autonomous governments" would be immediately swept away by the huge majority of the Chinese people there, assisted by the still independent Mongol tribes. The real holders of power are the Japanese military oligarchy of the Army Special Service.

Head of that service in "Meng-Chiang" is Major General Sakai, closely connected with his colleague Major General Kita in the same position in North China, and man of the full confidence of the Japanese War Minister General Itagaki. With his service one of the Japanese "advisers" with each of the puppet government units in "Meng-Chang" is directly connected. Others of these "advisers" appear to have had formerly connections with the Army Special Service. Many of these "advisers" are graduates of the Yokohama School of Oriental Languages, one of the centers of Japanese intrigues in Central Asia. All of these Japanese officers long-experienced in Dai Nippon's military intelligence service belong to the extremist group of the anti-Russian faction of the

(*Continued on page* 59)



GENERAL BEAUMONT, U.S.M.C., AND MAJOR GENERAL KITA, JAPANESE ARMY

Bois de la Brigade de Marine

Adaptation by

J. D. WILMETH,
1st Lt. Inf., U.S.A.

Based on the Personal Experience, Monographs of Major R. E. Messersmith, and Captains H. L. Larsen and R. E. Knapp, U.S.M.C., prepared at the Infantry School, Fort Benning, Ga.

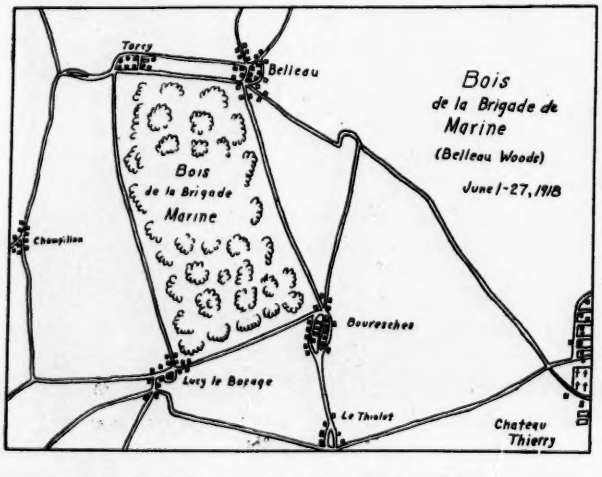
"So here we are in Saint Nazaire,
And our guns have rusty bores;
We are working side by side with Huns
And nigger stevedores.
If the Army or the Navy
Ever gaze on Heaven's scenes,
They will find the roads are graded by
The United States Marines."

"SKIPPER, there's a rumor up at Battalion that we're going to get the hell out of here!"

The company commander dexteriously slid a mess kit spoon pyramided high with beans into his cavernous maw without touching at any point until the door was shut.

"Son, that rumor got its start in a Confederate latrine." His massive jaws moved up and down on the beans with the slow, powerful strokes of a pile driver. "And if we *are* going to move," he never missed a beat, the words passing through the beans without a break in either system, "my last tailor-made says it'll be toward League Island."

Six months in Saint Nazaire had left the battalion feeling as neglected as a gambling debt. Ever since the Navy Transport Henderson dumped us here June 14, we'd been guarding docks, stores, and performing other menial tasks of Line of Communication Troops until the last disgruntled leatherneck would have swapped his chances of seeing the war for a bottle of Père Poiret's wine. Père Poiret conducted a little dairy up at the end of Cantonment Alley. He milked four dimunitive cows while his two buxom daughters, *les soeurs Poiret,* made a vile wine from little scarlet berries called blood blossoms. The men, from the word *soeur* (sister) had renamed the grog "sewer" wine, and quite justifiably I think. But the wine was cheap, and thus its popularity was assured.



Despite the skipper's incredulity we *did* move. The next morning, along with our French toast (which we introduced to France) an order came busting in, and up we went to Bourmont, riding the "8 horses 40 men" coaches.

Bourmont wasn't good, but it *was* a change. As one of my sergeants remarked, "Them women in Saint Nazaire is worse'n Philadelphia femmes if you gotta stay with 'em six months."

At Bourmont we learned the war was still playing, and probably would run another season since we had come over to increase the gate receipt. Here, under the French, we were taught combat during any period of the daily twenty-four hours. From this disregard of the clock, the men named Bourmont "the day and night" drill area. We learned how to run raids, repel raids, and how two can live as cheap as one in a trench. But after Black Jack Pershing's visit, we were out of the trenches by order and hitting the ground in the open. As well as restoring much of our spirit, this war of movement served to toughen up our ball team so that we whitewashed the Frogs in the opening game. Thereafter they were forbidden to play ball because it was not serious enough. Hell, it always was with us.

While at Bourmont we became part of the 2nd Division, the 5th and 6th regiments and 4th machine gun battalion all Marines constituting the 4th Brigade under the command of an Army officer, but a damn good one, Brigadier General James G. Harbord. Following Army procedure our company numbers were changed to letters, and thereafter Army orders always referred to us by the letter designation—but we never got it straight. We used the doughboys' manual of arms, and his extended order drill, but his letters—no! The clerk at Battalion, who had a conversion table, always translated the letter on an incoming communication into the numeral of the company concerned so there would be no confusion. I believe our company was "M," but to us it was and al-

ways will be the fighting 47th. How can you get a company spirit out of "M"?

The other companies in the battalion were the 45th and 8th, brought from Santo Domingo with us, and the 16th from Haiti. We felt we were well seasoned by three years of hide-in-the-bush-shoot-quick-talk-later skirmishes on our home fields. We were eager to reach the front, and we rather resented such a long delay in being put where we could show the Jerries a few tricks we had learned in the bush leagues of the Indies. Our style of war wasn't elegant, but a legion of Latin headstones in the tropics would attest to its effectiveness. We were ready—three rifle companies and one machine gun outfit (the 8th)—to end the war. But the Army wasn't satisfied with this organization. They busted into our machine gun company, took away their Lewis guns and gave them Hotchkiss hot-boxes, and then packed the whole outfit off to regiment, giving us in return for this company of veteran gunners a rifle outfit of volunteers enlisted from the University of Minnesota.

(Note: After the war the Army adopted *our* battalion organization of three rifle and one machine gun company.)

We were a little soured by this exchange. The men dubbed the colege boys "the schoolgirl company," and for a time associations between our men and the recruits weren't pleasant. But when the schoolgirls cleaned up the basketball, the baseball, and the soccer leagues, our men began to wonder if education was really sissyfying.

Reconciliation came one afternoon during gas mask drill. For this instruction the French had loaned us a Paul Bunyan of a sergeant, seven feet tall in his stocking feet, and who boasted of being "the strongest man in the Alpine Guards." He was an uncouth, truculent beast who spoke nothing but the vilest cuss words in three languages, and would haul off and strike a man for the most trivial reason. Despite our many objections to the French, he was still kept on as instructor in gas mask and bayonet drill.

On this day because one of the men in the volunteer company had deposited his cookies in his mask after a half hour's trot around the morgue (bayonet field) the Alpine got savage, halted the battalion, drug this man out, called him a puling, weak little rat, and, without even the formality of an introduction, kicked him in the stomach, yelling, "Maybe thees make you seeck, too, eh?"

Our men had been warned time after time to make no trouble with the French, but this exhibition was too much for a big blonde from Minnesota. Stripping off his gas mask as he ran forward, he reached up and grabbed the collar of this Goliath, whirled him around, and, standing on tip-toe, smacked him so hard the guard lowered the retreat flag. The pots in the battalion mess rattled when Goliath hit the ground. Immediately a roar went up, and the 45th, 16th, and 47th companies closed in to shake hands with every man of the 20th. The feud was over; the Alpine was relieved; and the blonde became All-American at Minnesota in 1919.

On the 14th of March our battalion was moved into a sector near Verdun—our first front line service. But this area was not popular with either side, and except for a few prisoners the 16th company took from a German raiding party, we still had seen no Boche when we were relieved May 14 and sent near Paris as a reserve for the French Army.

But we had no sooner squatted on our hunkers for an undeserved rest than the Heinies started shoving against the ply-wood door of Paris. General Pershing had been holding us out in order to organize the A.E.F., but when the pressure became great enough to make the French government consider abandoning Paris, he offered to throw in what he had on the ground at present. Our division was moved immediately to the Chateau Thierry sector and we were placed across the Paris-Metz highway near Montreuil-au-Lions.

The tedious ride into this zone first brought to our realization the debacle of war. The highways were choked with refugees, carrying in bags, bundles, and wheelbarrows the small possessions they were able to take from their homes. Pale, emaciated children, their small arms weighted down by heavy earthen jugs filled to overflowing, trudged in the footsteps of stooped, tired looking men and women, wrinkled and withered. There were no young people. Long ago the youth had been bled from France, the men to the battlefield, the women to the factories, leaving behind only the very young and the very old, separated by a generation. The sight of so much misery sobered us as nothing else had been able to do. We spoke little, but along that great plain of man's common understanding we all felt in ourselves and in each other a determination to blot from the earth the nation that was wreaking this destitution.

I was in the front seat with the sleepy-eyed Siamese driver as we sat waiting for a bridge up ahead to be cleared. Wrapped in melancholy reflection on the sufferings of war, I was suddenly brought back to consciousness by the touch of a cold, bony hand on my own. I turned to find a withered old man standing beside the lorry, looking up at me with deep, seamed, eyes, full of all the miseries the world has known since the fall of Eden. I knew only half a dozen French words, but in an attempt to relieve my embarrassment at being the cynosure of the old fellow's attention, I said, *"Bon jour, monsieur"* (good day, sir). I tried to smile, but I felt guilty of a sacrilege in the face of so much misery. The old man continued to search my face where now the smile had frozen, for I could see the sorrow of disappointment limning the crow's feet beneath his eyes.

"Bon jour?" he said. *"Bon jour?"* His grip on my hand relaxed, and he shook his head slowly. *"Vous n'etes pas Americain?"*

I caught the last word *"Oui,"* I replied. "American."

From the depths of despair centuries deep in his face I began to see a smile slowly working its way to the surface. Stumbling up onto the running board, trembling with emotion, he pulled my face down and kissed me. I could feel the warm drop of his tears on my hand. A little old woman, stooped and broken, approached him and took him by the arm. His face was now fairly glowing with hope. As she led him away she turned to

XUM

me and made signs to indicate that the poor old fellow was blind.

I watched the two of them plod off down the road, leading behind them a scraggly goat. I could still feel the drop of tears on my hand, this time my own. I knew then what our being here meant to these people.

Our battalion was placed in position just north of Lucy le Bocage facing toward a dense expanse of trees called Bois de Belleau, taking its name from the town just to the north of it. The right of our company was almost in Lucy, next to the 6th Marines. Our left extended to the north and joined with the 20th company, no longer disdained, and beyond the 20th was the 45th commanded by Capt. Case. The 16th, under Capt. Yowell, was in support to our right rear. Capt. Berry commanded the battalion at this time.

Here we worked night and day organizing a defensive position strong enough to stop the great German drive. But the French, though beaten to a shell, had given their last bit of strength to bring this steam roller to a temporary stop before they pulled out and asked us to take over. It was an unsteady moment. Any minute the Germans would start rolling again, for they were on their way to Paris, their morale soaring. Had they pushed at just this time they would have reached their goal, for the French Army was broken, and we were thrown in so hastily huge gaps were left in the front which weren't discovered until two days later. But General Harbord decided we could push harder than we could hold, and that now while the Jerries were taking a breather was a good time to start shoving.

The order came rather suddenly. We were whittling toy guns out of ammunition boxes late one day while waiting for our supper of gaskets and sorghum to come up when the skipper busted in with a handful of papers and a 14k. smile on his puss. While we gathered up our equipment and fastened it on us he issued an order. We didn't have time to make notes; there was no map; but we knew which way the enemy lay, and that was enough.

"Get your men out into positions as fast as you can," the skipper yelled, "we attack at 5:00 o'clock!" And pulling out his watch, he added, "It is now 5:15."

Without the preliminaries of artillery support or even the blast of a whistle the first and second platoons moved out and down across the open wheat field to our front. We were half way through the standing grain before the Germans opened on us. Machine gun fire cut like a scythe across our ranks, but we pressed on, spreading out in the wheat and taking the old formations we had used so many times in the cane fields of Santo Domingo. Their mortars had opened now, but despite the heavily increasing fire, down across the waving field we drove, jumped the Torcy road, and plunged into the southwestern edge of Belleau Woods. Once in the brush we were more in our element of guerilla warfare. The Germans, unexpectant of an attack, had not organized this far forward. After their guns had failed to stop us in the wheat, we had to run to keep up with the fast retreat they made to their organized defenses.

So anxious were we to take some prisoners that, speed unabated, the leading platoons broke into a clearing in the woods before common sense could stop them. The crash of half a dozen typewriters toppled the forward ranks onto ground fast becoming splattered with a new blood. The woods on the far side were rimmed with machine guns.

We drew off to the right edge of the cleared space by crawling, and from this cover the company commander sent four men around the clearing to outflank the guns holding up our advance. A quarter of an hour passed, and the guns were still in action. A detail of six men was sent on a similar mission. When they failed to return, I took a detail of ten men, cut deeper into the woods, intending to come out to the left of where the other patrols had gone. Half way over a gun caught us. When we assembled under cover in the woods I had three men left.

Leaving two of our men here under cover the sergeant and I crawled back through the tangle of underbrush to where our dead buddies lay. Here we could see up ahead the bodies of the men of the other two patrols. All had been killed within the space of a few yards. It was not a comfortable spot, but if men had been killed in this area, whatever gun had taken their lives must be in view from here. Keeping covered from the front we quietly studied the ground in all directions. But look as we might there was no indication of a gun. Our nerves were about to drag our bodies away from the place when the sergeant whispered across to me, "Lieutenant, look how them bullets went through that little sapling."

I turned my head slowly and looked at the tree he had indicated. A burst had cut completely through the trunk, but on a descent of about thirty degrees.

"Them suckers is in *trees!*"

And no sooner had we turned our eyes to search overhead than the sergeant loosened his rifle. I didn't see the suspicious clump until he had fired. I heard the banshee scream of a dying Hun, and then I saw him fall, tearing off limbs in his heavy descent, until he stuck with a fleshy thud in a tree crotch about thirty feet above the ground. Seemingly as an afterthought, his helmet a few seconds later, toppled from his head and struck the ground with the rattle of an empty bucket. The sergeant fired twice more into the nest, but the gunner had been the sole occupant. He had accounted for seventeen of our men.

Knowing now where to look we rejoined the other two men, and the four of us moved along the far side of the clearing, spread out like a bunch of Tennessee turkey hunters. At intervals we removed three other guns and four rifle snipers before sending across the clearing for the rest of the company. But dark was settling on us, and the company commander had received orders to stay where he was for the night. Our advance was far ahead of the 20th company on our left which had been held up in the open wheat field. During the night this company came up abreast of us, finding the enemy to their front had fallen back on discovering our advance. We expected a counter-attack that night or early the next morning, but it didn't materialize, Patrols sent out the following day reported the enemy had increased his defenses. One

prisoner was brought in to the company, the first enemy soldier we had seen at such closer quarters. A man in the first platoon who spoke German questioned him before he was sent on to brigade. He said that his outfit thought we were Canadians, but when we fought so fiercely then they knew we must be the damn fool Americans because we had not learned about death. He said they had been told we took no prisoners—which belief helped to account for the determined struggle they were making. Late the next day we were relieved and sent to take over the town of Bouresches from the 6th Marines. Here we spent several quiet days, but no dawn passed without the German artillery dropping a few g.i. cans in and about the town so we wouldn't feel neglected. We were still on the front, but the lines here were separated by several thousand yards.

On June 13 the enemy attempted to take our position. South of the woods the ground was open, covered by wheat beaten down by the German retreat. The fields sloped gradually up to Bouresches from where we saw the advance as soon as it left the Bois de Belleau. Groups came along the roads leading into town taking cover in the ditches along the sides and firing as they advanced. Carrying machine guns with them they set up in the fields, moving rapidly from one position to another before we could bring steady fire to bear on them. We had just had a forced issue of the most despicable automatic weapon ever designed, the Chauchat, and sweating a quart of cognac wouldn't get one of the damn things to fire more than a burst of two—and that constipatedly.

One German machine gunner and his assistant must have carried the charm of Achilles. Advancing across a field to our left front, they had far outdistanced their neighboring troops and were coming hell bent for the center of town. Though often setting up in the most conspicuous of places, looking like a bull's eye on a background of wheat, the harder we tried to hit them the more we missed. They moved often, lugging the gun completely assembled, setting it up a few yards closer and sweeping our barricaded walls and cellars with an extremely accurate fire. The two must have been mad to outdistance their support, but they were getting away with it. With more and more guns turning on them, still they came on, spurting streams of hot lead, picking her up and running forward, down again and opening up. Our fire was mowing the wheat around them, but they shed bullets like a turret. As they advanced closer and closer and more and more fire began to bear on them it seemed utterly impossible that they could still live. But they had plenty of life, and were using it.

With the falling off of our fire on the other groups they too began rapid advance, encouraged by the failing marksmanship of our men. I have never understood how those two dare-devils could remain unscathed from the fire of at least 400 weapons that must have been brought on them by the time they were within 300 yards of the town. Our men began to yell among themselves, shouting, "Get those ——— ——— ———!" But still the two came on, on, on, until I began to wonder if they would also be invulnerable to the bayonet.

They must have been within 150 yards of our cellars before their ammunition ran short. As the assistant started to the rear in search of more, a shot caught him just as he reached the ditch by the road. He was carrying a pocket full of rockets, and all of them went off at once, making a hell of a racket and looking like the 4th of July. Sparks and whirligigs flew in the air as though marking the death of one of the gods' favored.

This hit seemed to restore the power to our rifles, and the rest of the Boche, now almost brazenly walking across the fields, were quickly decimated before they could beat a retreat to the edge of the woods. It struck me as peculiar at that time how much easier it is to hit a man running away from you than it is to stop one coming toward you. The battle was over in a few minutes—yet today, often in chimeras, I can see those two gunners, coming on, on, on while I shoot, and shoot, and shoot, unable to hit them.

In retribution for our having plugged the heel of Achilles, that night as we were being relieved by the 23rd Infantry the Germans spewed us with gas, drenching the town and all surrounding roads with nauseous mustard, taking more casualties than their guns had taken from us on all previous days.

We went back into positions very close to those we had left several days before. The Heinies still held the northeastern edge of Belleau Woods. Gen. Harbord wanted them ejected, and as we had started moving them he asked the Division to let us finish the job.

The night of relief we spent in feeling the enemy's pulse and testing his disposition. We found him very nervous, and free with his lead. Remembering the information prisoners had given us on the previous visit to this area. Brigade had thoughtfully sent up propaganda pamphlets assuring the enemy that the Americans *did* take prisoners and gave them the best of food and treatment. Patrols scattered these pamphlets along the enemy line the first night, and the next morning the woods on the far side were decked with our declarations, the battlefield looking like a picnic grounds on Monday morning.

On the afternoon of the 23rd orders came down to attack at 5:00 P. M. There would be no artillery support. Each man would be issued five grenades. The lack of artillery didn't please us, but we looked forward to receiving the grenades, a weapon we had never used before. But the time of attack came before the grenades, so we had to jump off without them.

The Germans were not taken by surprise. No sooner had we stepped from our positions than the enemy artillery dropped in our pockets, and machine guns, there must have been hundreds of them, joined hands across the front. We were penned to the ground flat as a dime and digging holes with our teeth. (This was probably the inception of trench mouth.) Finally dark drew the curtain, and with gall bladders in place of hearts we crawled back to our positions of the day. We hadn't gained an inch, but we had certainly added to our battle experience.

I don't believe our brass hats realized at the time how desperately the Germans wanted to hold those woods.

(*Continued on page* 58)

XUM

Ellet's Horse Marines

By Lieutenant Harry E. Day, U.S.N.

Hurrah Boys! Convalescent Soldiers!

$100 BOUNTY

Soldiering made easy!

No hard marching!

No carrying knapsacks!

The proposed new service is especially attractive to old soldiers. It has the following advantages:

There will be little marching to do.
There are no trenches to dig.
There is no picket duty to perform.
There will be no rebel houses to guard.
There is no chance of short rations.
There is no danger of camps in the mud.
You will sleep under covers—with bedding.
You will have good cooks.
You will travel on sumptuous New Orleans packets.

JOIN THE MISSISSIPPI RIVER MARINE BRIGADE

ALFRED W. ELLET,
Brigadier General, U.S.A., Commanding.

The above "come on" inviting old soldiers and convalescents to enjoy the martial life surrounded by all the comforts of home is a bit out of the ordinary. Extraordinary when compared to the terse inducements of "Travel," "See the World," "Learn a Trade."

But then the siege of Vicksburg was an unusual campaign. The Army, the Navy, the Mississippi Ram Fleet, and our subject the Mississippi River Marine Brigade executed singular assignments in bringing about its fall. Such recruiting tactics might be excused in light of that.

The organization and its administration is another exception. Personnel of the Marine Brigade were marine in title only—they were recruited for the most part from hospitalized state militia—their replacements came from army organizations—and they served for the duration of the campaign under naval command.

They went to sea confronted by problems that few of us will ever be called upon to solve. When the Mississippi overflowed its banks the Navy took off across country. Cattle paths were converted into temporary channels without benefit of survey save the lead. Trees menacing navigation were charged upon and butted out of the way or over-run. Low hanging limbs removed the stacks and superstructure as well as the boats. Submerged willow tree wands snagged the ships bottoms and brought them to a full stop. The crew of necessity went over the side and chopped them out. High water always drove the wild life to the trees. Not infrequently after such butts, ship had to be cleared of wildcats, skunks, raccoons, opossum, rats, mice, snakes, lizards; and insects over the normal complement.

The Navy's normal inabilty to go across country was the principal reason for the Brigade's inception. The Navy could command the river only when on the spot and within gun range. Even then the frequent high banks effectively blanked the low elevation guns. This intrinsic shortcoming of his command was readily apparent to Acting Rear Admiral David D. Porter when he assumed command of the Mississippi Squadron 21 October, 1862.

The general military situation confronting Admiral Porter at that time was: Fort Pillow and Island No. 10 had fallen as had New Orleans. The Confederate Ram Fleet had been annihilated before Memphis. The Mississippi was open above and below Vicksburg: There is was most effectively dammed to all but the stoutest of vessels. The Confederates blocked all through commercial passage of the river and the Union forces partially isolated the city's hinterland of northern Louisiana, Arkansas, and eastern Texas. (Figure "A".)

Vicksburg's loss would split the South. It was the remaining railhead on the river. Man-power, cotton, foodstuffs, and contraband converged here for shipment east from the Atchafalaya Bayou (which bypassed New Orleans), the Red, Arkansas and White Rivers, and the Yazoo Delta. Its capitulation would be detrimental to the Confederate's prospects of recognition, loans, and supplies from benevolent European neutrals.

To the North the opening of the Mississippi was equally

important. Its control would improve the Union's foreign relations at the expense of the South. It would be easier to blockade the southern states from the river than on the more difficult Gulf. And the Union needed a victory!

Perhaps the greatest concern was felt anent the growing disaffection in the west. General McClernand advised President Lincoln, after Shiloh, that the war was becoming unpopular in the Mississippi Basin. Primarily agricultural, there was practically no transportation to the East and Europe for the farmer's products: The few railroads were choked with military supplies and with *cotton* smuggled through the lines. Too—the westerners considered the abolition movement a New England agitation and they resented the protectionist's attitude of that section's industrialists in tariff matters.

It was apparent that the Mississippi must be opened for military—economic—and political reasons.

As Porter reviewed these inter-related factors in deducing his mission (he had been given none other than to co-operate with the Army of the West) he realized the extreme importance of uninterrupted communications via the river for the ensuing operations and, without military cooperation, their vulnerability. Guerillas were everywhere. Organized forces were operating in Arkansas and in the impenetrable fastness of the Yazoo Delta. The Navy, alone, was unable to cope with them. The guerillas would move a battery to the river's bank—conceal it— and wait for the next Union boat. The river packets were—commercial or transport—as fragile as the now familiar harbor excursion boat. Their attack was as devastating as it was sudden. Sharpshooters, trained by the dictates of the frontier, picked off everyone topside and casualties to pilots was a constant problem. Even the tinclads suffered heavily when ambushed so. When fired upon, by gunned ships, these bands simply retired beyond gun range and moved into a new position as soon as they had moved on. It was impossible, with the few vessels available, to guard every mile of the 800 separating Vicksburg and St. Louis.

Admiral Porter needed, as an auxiliary for his squadron, a highly mobile force of infantry and light artillery—troops specially trained in amphibious warfare. They had to be skilled in fighting their ships and as equally proficient when disembarked. Such a force could patrol the river and by frequent surprise raids (the Brigade called them "scouts") prevent the setting up of rebel batteries—destroy them if erected—disperse the group and by continually harassing the scattered forces prevent their re-assembly. Of necessity, they must be under his direct command.

He requested that his command be supplemented from the Marine Corps. Being organic, there would be no problem of cooperation.

Secretary of Navy Welles replied that none was available. But he did pass the problem on to the Army. One of the unusual characteristics of Mr. Welles was his constant concern for an economical administration of the Navy Department.

Secretary of War Stanton believed that he could provide a similarly trained force and their required transports: He had previously provided the original ships of Porter's command!

Lt. Col. Alfred W. Ellet, commanding the Mississippi Ram Fleet, was in Washington and attended the conference resulting in the formation of the Marine Brigade. As planned, it was to consist of:

1 regiment of infantry (1,000 men)
4 squadrons of cavalry (500 horse)
1 battery light artillery.

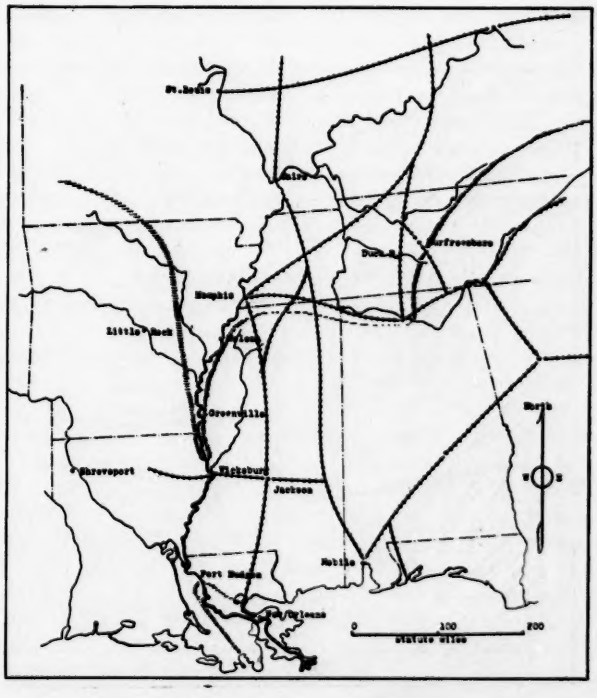
Having provided the men and boats for the new command, Secretary Stanton confidently expected it to be added to the already numerous Army forces on the river. It would operate as an auxiliary to the Ram Fleet under the joint command of the newly promoted Brigadier General Alfred W. Ellet. Lincoln signed the papers on 7 November, 1862. As a postscript he wrote: ORDERED: "That Brigadier General Alfred W. Ellet report to Admiral Porter for instructions and act under his direction until otherwise ordered by the War Department."

Recruiting headquarters were opened in St. Louis. For transportation, New Orleans packets were purchased and converted into transports. They were:

Autocrat (flag)
B. J. Adams
Baltic
Diana
Fairchild (QM and Commissary boat)
John Raine
Woodford (hospital ship).

The assignment of these sumptious packets, suitable for the transportation of 9,000 men, to an organization of 1,500 men was to plague the Marine Brigade to the time of its disbandment.

Recruiting was slow. The various states offered bounties and insisted on receiving credit for filling of quotas: Both of which Ellet was unauthorized to do. Then the expedient of enlisting "convalescents" was hit upon—Army commands were authorized to discharge their hospital cases and those who could not march or were otherwise unfit for



field service, if they would re-enlist in the Brigade. Bounties were next authorized and the recruiting pushed in a publicity campaign typified by the composite handbill heading this article.

The first of the Brigade left St. Louis 13 March, 1863.

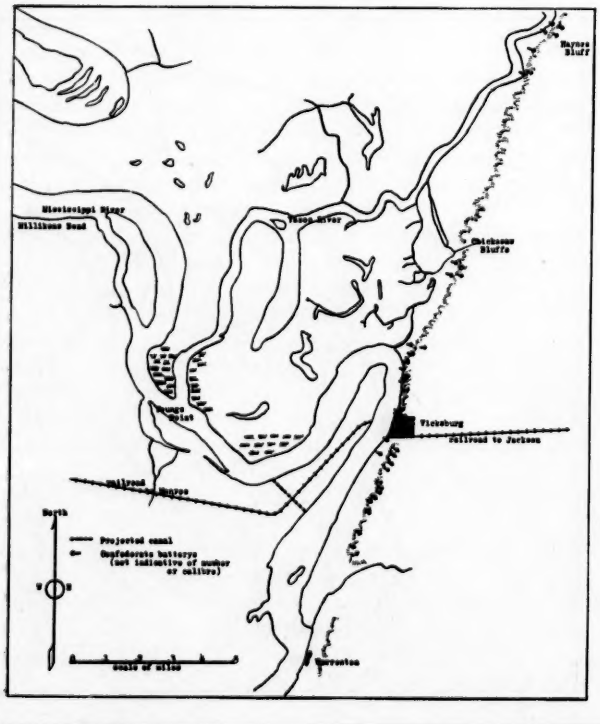
Externally, the packets were now unrecognizable. Their sides, from the lower deck to the hurricane, were built up of two layers of 2-inch oak plank with loopholes for rifle and small arms fire. The pilot house was encased in boiler iron. Two cranes were installed on the forecastle for lowering and raising the two gangplanks leading forward from each side. The gangplanks were wide enough to pass, simultaneously, two mounted cavalrymen—abreast.

From the 1863 song hit "Ellet's Horse Marines":

"I am Captain Jinks of the Horse Marines
I give my horse good corn and beans
Of course it is quite beyond my means
Though I am a Captain in the Army."

Hot water hoses, direct leads from the boilers and kept in condition one, were faked forward for repelling boarders. The boilers were protected outboard by huge coal bunkers and 12-inch oak timbers.

Ellet's additional command arrived at Young's Point on 22 March and was in Porter's dog-house within 72 hours. Porter was absent from his usual anchorage at Millikens Bend: He, with General Sherman, were on another of their several abortive attempts at forcing the Yazoo Delta in order to take Haynes Bluff in the rear (see Figure "B"). Admiral Farragut was below Vicksburg: He was charged with keeping the lower Mississippi open. Ellet crossed the isthmus to call. Farragut told him of his difficulties on the lower river and expressed the wish of having several more ships to aid him temporarily. Ellet ordered two down that night. For some reason or another they did not reach Vicksburg before daylight. Only one, badly damaged, passed the city's batteries.



Porter was furious. Long standing orders for his command were: No ships movements without authorization and, no attempt was to be made in passing Vicksburg except by night. This breach of discipline was to color all of their subsequent relations. This lack of a sense of discipline was manifest in other ways. Only recently the crew of one of the Brigade boats had rioted aboard ship and had refused to obey their officers. The cooking was not as advertised!

The Mississippi was now in flood. Grant's army had been forced out of the back country and was now encamped on the levee facing Vicksburg. The Army had been occupied, for spit and polish, in digging the projected canal across the isthmus in an attempt to isolate Vicksburg: Ironically enough the river broke through here soon after the fall of the city. Grant was trying to evolve a plan to turn the city. If he went south he would need transports to cross the river. The transports and some of the gun boats might get down but they could never return. With the naval support south of Vicksburg he left the upper river unguarded. With Porter and Sherman having just failed to turn the northern flank, there was nothing else to do but go south and try that flank.

Admiral Porter, in his Incidents and Anecdotes of the Civil War briefs the elaborate plans for the joint operation as follows:

"I will go below Vicksburg," General Grant said, "and cross over if I can depend on you for a sufficient naval force. I will prepare some of the transports by packing them well with cotton bales, and we will start as soon as you are ready."

"I will be ready tomorrow night," I replied, "and in the meantime will lay in a full supply of provisions and ammunition, and prepare coal barges to take along."

The war council which followed is equally as interesting because of its simplicity:

"General Grant called a council of war that afternoon on board my flagship—the *Black Hawk*—and, after informing the generals what he proposed to do, asked their opinions.

"General McClernand did not attend the council, but wrote to Grant approving the plan. I think General Sherman was present, but did not favor the plan, as it would take the Army a long distance from its base of supplies, and for other good reasons which Grant considered it necessary to set aside at the time.

"All the other generals present at the council strongly objected to Grant's plan. He listened patiently and, when they had finished, remarked, 'I have considered your arguments, but continue in the same opinion. You will be ready to move at ten o'clock tomorrow morning. General McClernand will take the advance; General Sherman will remain here with his division and, if possible, make an attack on Haynes Bluff in conjunction with such of the gunboats as the Admiral may not want with him below'."

Concurrently, the Confederates were trying to relieve the pressure exerted by Grant. The Brigade had been sent to Greenville, Miss., to disperse the guerilla forces of Colonel Ferguson and forage for a month's supplies. Large forces were moving against General Rosecrans at Mur-

freesboro, Ky. Grant countered this by ordering Streight on a raid through southern Tennessee and northern Alabama. Supported by a part of the Mississippi Squadron and the Ram Fleet, the Brigade was ordered to the Tennessee River to transport Streight's troops. They embarked them at Fort Henry on 15 April and a few good scouts netted enough horses and mules to equip the army command. Scouting daily, paralleling the advance of the convoy, they destroyed all rebel means of transportation from ferries to canoes—burned saw mills and lumber yards —wrecked distilleries and every industrial plant capable of aiding the Confederate cause. They loaded the boats with CSA cotton (worth $1,000 a bale), tobacco, hams, bacon, meal, sugar, molasses and, we can assume, the best bourbon for General Grant and for Admiral Porter's hot toddies.

As the convoy proceeded up the Tennessee General Rosecrans slipped out of Murfreesboro and in a series of lightning raids wrought havoc with rebel railroads, industries and military supply depots in and about Chattanooga, Atlanta, and western Georgia.

Streight had to disembark just short of the Alabama line as the river was falling. On the convoy's return trip they evacuated Union sympathizers. When passing the junction of the Duck River they were ambushed. A rebel force of 600 cavalry and 4 field pieces were camouflaged there and opened fire as the convoy was passing. Under cover of the gunboat's fire, the Brigade transports made a 9-turn—rammed their bows into the mud at the bank—dropped the gangplanks and the "horse marines" were ashore. They chased the rebels 12 miles back from the river, dispersing them, and captured their wounded commanding officer. This force had been opposing Rosecrans at Murfreesboro.

Return to the big river again sent the Brigade on various assignments: Protecting Union commerce—destroying all means of rebel communication by water—foraging—scouting—arresting as prisoners of war all males qualified for Confederate conscription—transporting reinforcements to Grant—and denying Vicksburg of the stream of men and supplies coming from the west.

In accordance with Grant's plans the Brigade was back at Young's Point on the 29th of April as part of the naval forces left behind by Porter to assist Sherman. Porter fought and won the battle of Grand Gulf the same day. Porter then covered the ferrying of Grant's Army from Louisiana across to Mississippi: The light was green on the road to Vicksburg.

Grant sent General Joe Johnson reeling back into Jackson and chased General Pemberton into Vicksburg. The city was encircled.

A state of siege might connote passivity; and the little change from day to day on the immediate scene would support this opinion. But to ensure the continuation of such a state at the center, all must be activity on the periphery.

The Marine Brigade was never busier: Lines of supply must remain inviolate. They were disembarked and their transports used to ferry reinforcements from Memphis. They transported and supported Blair on another punitive and foraging expedition up the Yazoo. They then went to Richmond, La., with General Mowrer and dispersed a force of 12,000 rebels. They constructed a "pill box" from railroad rails on the opposite levee fronting the city and, mounting a Navy Parrott gun, destroyed the Vicksburg Iron Works. This foundry had been re-casting Union shot and supplying the rebel batteries—Porter's old command, the 13-inch mortars, had tossed a lot of iron into the city. These more spectacular occupations were incidental to their normal operations containing the guerillas intent on disrupting the supply line to the north.

Vicksburg capitulated 4 July, 1863.

On the 27th, the Marine Brigade was returned to General Grant's command: Porter had requested this the past April! He was not notified officially until October!

With the main Union effort again directed against the east, the forces remaining in the west were charged with the consolidation of the Union's gains. Europe, with the city's fall, recognized the hopelessness of the Confederate cause and an immediate improvement in the North's foreign relations came about. As cotton was king in the economic structure of the south—so was cotton the king pin in the Union's relations with England. The North leased plantations along the river—manned them with Union sympathizers—and accomplished two objectives with one effort. The Brigade was given the task of protcting these planters. Scouts made on this assignment were especially productive in augmenting the export by seizure of CSA cotton.

And in other ways the Brigade was economically sound. They intercepted $3,257,340 in Confederate money and drafts intended for rebel forces beyon dthe Mississippi. Along with the money was a letter from the Confederate Secretary of War addressed to General Kirby Smith stressing the importance of continually harassing the river—its essentialness to the South's military and political well being and its affecting prospective recognition and loans from European nations.

The monotony of the river's patrolling was to be broken but once more. Secretary of State Seward was becoming alarmed over Napoleon III's conquest of Mexico. He was concerned over possible complications that might arise preventing the eventual return of Texas and the Southwestern Territories to the Union. The Red River Expedition under General Banks was sent for the purpose of opening northern Louisiana and eastern Texas for economic union at least. The expedition failed for various reasons; but principally because of a hitherto unnecessary need—cooperation.

Back on the Mississippi again, the Brigade resumed the constant scouts and foraging incident to their tasks; meeting with but sporadic resistance. Grant was in Virginia—Sherman was at Chattanooga preparatory to his marching through Georgia—Porter was planning the assault on Fort Fisher.

In August '64 the War Department considered the Marine Brigade's work finished. The command was disembarked at Vicksburg and their transports assigned to various headquarters along the river as reserve transportation. The Mississippi River Marine Brigade became the Consolidated Marine Regiment. Protesting their loss of identity, and prerequisites, forty-eight of the old Brigade were clapped in the guard house. They were in the Army as far as discipline was concerned regardless of the fact that they had joined the Marine Brigade.

(Continued on page 57)

The Selection Law*

AN Act to regulate the distribution, promotion, and retirement of officers of the line of the Navy, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby established a merit system for promotion by selection in the line of the Navy.

AUTHORIZED NUMBER OF OFFICERS OF THE LINE

Sec. 2. The total authorized number of commissioned officers of the active list of the line of the Navy, exclusive of commissioned warrant officers, shall be equal to 5½ per centum of the total authorized enlisted strength of the active list, exclusive of the Hospital Corps, prisoners undergoing sentence of discharge, enlisted men detailed for duty with the Naval Militia, and the Flying Corps.

DISTRIBUTION OF OFFICERS OF THE LINE

Sec. 3. (a) The total number of commissioned line officers on the active list at any one time, exclusive of commissioned warrant officers, shall be distributed in the proportion of one in the grade of rear admiral to four in the grade of captain, to eight in the grade of commander, to fifteen in the grade of lieutenant commander, to thirty in the grade of lieutenant, to forty-two in the grades of lieutenant (junior grade) and ensign, inclusive: Provided, That except in time of war there shall not be more than seventy rear admirals on the active list of the line of the Navy, exclusive of additional numbers in grade.

(b) To determine the authorized number of officers in the various grades of the line as provided in subsection (a) of this section, computations shall be made by the Secretary of the Navy at least once each year, and at such times as he may direct, and the resulting numbers in the various grades, as so computed, shall be held and considered for all purposes as the authorized number of officers in such various grades and shall not be varied between such computations: Provided, That no officer shall be reduced in rank or pay or separated from the active list of the Navy as a result of any computation made to determine the authorized number of officers in the various grades of the line: Provided further, That the number of officers allowed in any grade as a result of any such computation may be temporarily increased to include any such officers as may be promoted to that grade by reason of being recommended by a selection board as fitted for promotion as hereinafter provided or as may be retained in that grade by section 12 (j) of this Act; and the total number so carried in excess in the several grades shall be applied as a reduction to the numbers allowed to the grades of lieutenant and lieutenant (junior grade) and ensign, in the proportions of one-third of such total excess number in the grade of lieutenant and two-thirds in the combined grades of lieutenants (junior grade) on the promotion list who would under existing law be promoted to the grade of lieutenant prior to June 1, 1939, may be so promoted, without regard to the number of officers allowed in that grade by the computation prescribed in this subsection, on the dates on which under existing law they would be entitled to such promotion.

(c) For the purpose of determining the authorized number of officers in any grade or rank of the line, there shall be excluded from consideration those officers carried by law as additional numbers: Provided, That officers who, on the date of approval of this Act, are additional numbers in grade by reason of the operation of section 3 of the Act of March 3, 1931 (46 Stat. 1483), as amended, are hereby changed to regular numbers on the Navy list; and no further such additional numbers shall be created.

(d) Whenever a final fraction occurs in computing the authorized number of officers of any grade, the nearest whole number shall be regarded as the authorized number.

PROMOTION BY SELECTION

Sec. 4. Subject to the provisions of section 1508 of the Revised Statutes, all promotions to grades above that of lieutenant (junior grade) of the line of the Navy, including the promotion of those officers who are, or may be, carried on the Navy list as additional numbers in grade, shall be only upon the recommendation of a board of naval officers as herein prescribed: Provided, That nothing herein contained shall be construed to interfere with the promotion of officers on promotion lists at the date of approval of this Act except as hereinafter provided in section 11 (b).

SELECTION BOARDS

Sec. 5. (a) The board for the recommendation of line officers for promotion to the grades of rear admiral, captain, and commander shall consist of nine rear admirals on the active list of the line of the Navy, not restricted by law to the performance of shore duty only, and shall be appointed by the Secretary of the Navy and convened at least once each year and at such times as the Secretary of the Navy may direct.

(b) The board for the recommendation of line officers for promotion to the grades of lieutenant commander and lieutenant shall consist of nine officers on the active list of the line of the Navy above the rank of commander, not restricted by law to the performance of shore duty only, and shall be appointed by the Secretary of the Navy and convened at least once each year and at such times as the Secretary of the Navy may direct.

(c) No officer may be a member of two successive selection boards for the consideration of officers for promotion to the same grades.

OATH FOR MEMBERS OF SELECTION BOARDS

Sec. 6. Each member of a board provided for in section 5 of this Act shall swear, or affirm, that he will, without prejudice or partiality, and having in view both the special fitness of officers and the efficiency of the naval service, perform the duties imposed upon him as herein provided.

ELIGIBILITY OF OFFICERS FOR CONSIDERATION BY SELECTION BOARDS

Sec. 7. (a) No captain, commander, lieutenant commander, or lieutenant who shall have had less than four

*In response to numerous requests the selection act is printed.

years' service in the grade in which he is serving and on the promotion list for that grade, on June 30 of the fiscal year of the convening of a board provided for by this Act, or who is not physically qualified, shall be eligible for consideration by that board.

(b) No lieutenant (junior grade) who shall have had less than three years' service in the grade of lieutenant (junior grade) on June 30 of the fiscal year of the convening of a board provided for by this Act, or who is not physically qualified, shall be eligible for consideration by that board.

INFORMATION TO BE FURNISHED SELECTION BOARDS

Sec. 8. (a) The Secretary of the Navy shall furnish the appropriate selection board with (1) an estimate of the number of vacancies which will occur before the end of the next succeeding fiscal year, in each grade or grades for which the board will recommend officers for promotion, in excess of the number of officers then on the promotion list; (2) the names of all officers eligible for consideration for promotion to each grade or grades to which the board will recommend officers for promotion; and (3) the records other than medical of all such officers; (4) a statement, as directed by the President, as to the percentage of the officers adjudged fitted for promotion as hereinafter provided, which should be continued on the active list to meet the immediate requirements of the Navy; Provided, That, after one year from the date of approval of this Act, a list of names furnished by the Secretary of the Navy of officers eligible for consideration for promotion to the grade of lieutenant commander or to the grade of lieutenant, exclusive of those previously considered, shall in no case contain a number of names greater than double the number of estimated vacancies certified for the grade concerned.

(b) Any officer eligible for consideration for selection shall have the right to forward through official channels at any time not later than ten days after the convening of said board a written communication inviting attention to any matter of record in the Navy Department concerning himself which he deems important in the consideration of his case: Provided, That such communication shall not contain any reflection upon the character, conduct, or motives of or criticism of any officer.

DUTIES OF SELECTION BOARDS

Sec. 9. (a) From among those officers who are eligible for consideration for promotion and whose names are furnished the board by the Secretary of the Navy, each board shall recommend for promotion those officers whom it considers best fitted for promotion, in number not exceeding the number of estimated vacancies certified to the board by the Secretary of the Navy as provided in section 8 of this Act: Provided, That in each grade all officers not selected as best fitted for promotion but senior in lineal rank to the junior officer selected as best fitted by each board shall be considered as having failed of selection as best fitted: Provided further, That such status of having failed of selection as best fitted shall not be considered as prejudicial to an officer with respect to his qualifications, his fitness for the naval service, or his eligibility for selection by the next succeeding selection board.

(b) In addition to the selection of officers best fitted for promotion as hitherto provided in this section, each selection board shall, from among those officers who are eligible and who have once failed of selection as best fitted by a preceding board, except officers in the grades of captain and lieutenant (junior grade), designate those officers whom the board adjudges fitted for promotion, and from among such officers shall recommend for retention on the active list a number equal to the percentage thereof furnished to the board by the Secretary of the Navy as provided in section 8 of this Act.

(c) The selection board shall also report the names of any officers among those eligible for consideration and of less than twenty-one years' service whose reports and records in its opinion indicate their unsatisfactory performance of duty in their present grades and in its opinion indicate that they would not satisfactorily perform the duties of a higher grade.

(d) The recommendation of the board in the case of officers who are now or may hereafter be assigned to aeronautical-engineering duty only shall be based upon their comparative fitness among themselves for the technical duties prescribed for them by law: Provided, That they shall not succeed to command on shore.

(e) The recommendation of the board in the case of officers who are now or may hereafter be assigned to engineering duty only shall be based upon their comparative fitness for the duties prescribed for them by law. Upon promotion they shall be carried as additional numbers in grade.

(f) No officer shall be selected as best fitted for promotion or adjudged fitted for promotion unless he shall have received the recommendation of not less than six members of the board.

REPORTS OF SELECTION BOARDS

Sec. 10. (a) The report of the board shall be in writing, signed by all of the members thereof, and shall certify that the board has carefully considered the case of every officer whose name was furnished to the board by the Secretary of the Navy, as provided in section 8 of this Act, and that, in the opinion of at least six of the members, the officers therein recommended are either selected as the best fitted or are adjudged fitted, as the case may be, to assume the duties of the next higher grade, except that the recommendation of the board in the case of officers who are now or may hereafter be assigned to engineering duty only, or to aeronautical-engineering duty only, shall be based upon their comparative fitness as prescribed in section 9 of this Act.

(b) The report of the board shall be submitted to the President for approval or disapproval: Provided, That in case any officer or officers recommended by the board as best fitted for promotion are not acceptable to the President, the board shall be informed of the name of such officer or officers and shall recommend a number of officers as best fitted for promotion equal to the number of those found not acceptable to the President and, if necessary, the board shall be reconvened for this purpose.

PROMOTION OF OFFICERS

Sec. 11. (a) The names of officers designated by a board as best fitted for promotion, and the names of offi-

cers adjudged by a board as fitted for promotion, and approved by the President, shall be placed upon a promotion list and promotions to fill vacancies shall be made from officers of the next lower grade whose names appear on the promotion list as having been designated as best fitted for promotion: Provided, That officers whose names appear on the promotion list as having been adjudged fitted for promotion shall be promoted at the same time that the officers next senior to them on the list of those designated as best fitted for promotion are promoted to the next higher grade: Provided further, That officers so promoted pursuant to the recommendations of the same report shall take rank with one another in accordance with their seniority in the grade from which promoted, and officers recommended in an earlier report shall, when promoted, have precedence of officers recommended in a later report: And provided further, That priority in assignment to duty in any grade shall be accorded, irrespective of seniority in grade, to those officers who have been selected as best fitted for promotion to that grade.

(b) The Secretary of the Navy may, in his discretion with the approval of the President, remove the name of any officer from the promotion list and submit it to the next ensuing selection board for consideration and recommendation: Provided, That the next ensuing selection board may select the officer concerned as best fitted for promotion or adjudge him fitted for promotion, and thereupon, with the approval of the President, the name of such officer shall be replaced on the promotion list, without prejudice by reason of its having been temporarily removed therefrom, and when promoted such officer shall take rank in accordance with his seniority on the promotion list at the same time his name was removed therefrom: Provided further, That if such officer is neither so selected as best fitted nor adjudged fitted by such next ensuing selection board he will be placed on the retired list on June 30 of the then current fiscal year: And provided further, That if the name of any officer selected as best fitted for promotion be removed from a promotion list of officers in any grade and submitted to another board as provided in this subsection, the estimate of the number of vacancies furnished said board by the Secretary of the Navy shall be increased accordingly.

(c) No officer shall be promoted unless he has had not less than two years' actual sea service in the grade in which serving and on the promotion list for that grade: Provided, That in exceptional cases where officers are specifically designated, during war or national emergency declared by the President, by the Secretary of the Navy as performing or as having performed, such highly important duties on shore that their services cannot be or could not have been spared from such assignment without serious prejudice to the national interest, the qualification of sea service in the cases of those officers so specifically designated shall not apply while the United States is at war, or during a national emergency declared by the President, or within two and one-half years subsequent to the ending of such war or national emergency: Provided further, That the qualification of sea service shall

PRESENTING

THE
JOHNSON
SEMI-AUTOMATIC RIFLE

Models include accurate High-powered Military and Sporting Automatics; Military Rifles on Special Order; Custom-built Sporters.

- **CALIBERS**
  .30-'06 (M1 and M2), and other high-power military and sporting calibers.
- **WEIGHT**
  Type R, about 9½ pounds, bayonet detached—Type V, about 8¾ pounds.
- **MAGAZINE**
  Type R: 10-shot rotary feed, clip-loads with bolt open or closed, uses standard U. S. Springfield clip, or may be loaded singly; bolt remains open after last shot fired. Type V: detachable box magazines, five-shot type.
- **ACTION**
  Johnson short-recoil, with 8-lug rotary bolt. Simple—positive—rugged—semi-automatic.
- **BARRELS**
  Changeable in four seconds; U. S. Springfield M1903, Enfield M1917, Remington, Winchester or Savage caliber .30-'06 barrels adaptable to the Johnson, and may then be interchanged without adjustment of any kind.
- **OPTIONAL FEATURES**
  Wood or plastic stock with or without hand-guards of same materials. Detachable bayonet for Types R or V optional.
- **MANUFACTURING**
  Maximum and minimum models have been made from production drawings to prove the manufacturing limits and absolute interchangeability of parts from one rifle to another. Thus, Johnson rifles can be manufactured in vast quantities on relatively short notice under ordinary mass production methods.
- **MILITARY TRAINING**
  Ease of handling and unusual simplicity of mechanism enable quicker training of riflemen than is possible with ordinary bolt-action rifles.
- **FUNCTIONING**
  Severe firing indicates that the Johnson rifle is not dependent upon any lubrication for reliable functioning. The Johnson rifle has fired 2,400 continuous shots in ninety minutes without cleaning, oiling or cooling.
- **REFERENCE**
  See November, 1938, issue of "The American Rifleman" magazine.

Write for further information.

JOHNSON AUTOMATICS TRUST
***General Offices:* 84 STATE STREET**
BOSTON, MASSACHUSETTS, U. S. A.
***Cable Address* "JOHNSON"**

not apply to officers restricted by law to the performance of engineering duty only or to the performance of aeronautical-engineering duty only.

Sec. 12 (a) For the purpose of the administration of this section, all officers on the active list now in the status of having failed of selection as best fitted, as defined in section 9 (a) of this Act, one or more times shall be regarded as having failed of selection as best fitted once only.

(b) Officers, except lieutenant commanders, lieutenants, and lieutenants (junior grade), whose names are not placed upon the promotion list, shall be placed on the retired list on June 30 of the fiscal year in which they fail of selection as best fitted the second time in successive years, with retired pay at the rate of 2½ per centum of their active-duty pay at the time of retirement multiplied by the number of years of service for which entitled to credit in the computation of their pay on the active list, not to exceed a total of 75 per centum of said active-duty pay: *Provided,* That a fractional year of six months or more shall be considered a full year in computing the number of years service by which the rate of 2½ per centum is multiplied.

(c) Lieutenant commanders, lieutenants, and lieutenants (junior grade) whose names are not placed upon the promotion list shall be honorably discharged from the Navy with two years' pay if lieutenant commanders or lieutenants or with one year's pay if lieutenants (junior grade) on June 30 of the fiscal year in which they fail of selection as best fitted the second time: *Provided,* such lieutenant commanders, lieutenants, and lieutenants (junior grade) who were appointed as ensigns in the permanent line of the Navy, in accordance with the provisions of the Act of March 3, 1901, as amended, shall have the option of reverting to such permanent warrant or permanent commissioned-warrant status in the lineal position to which their seniority would have entitled them had their service subsequent to such appointment been rendered in the status to which they revert.

(d) Captains, commanders, and lieutenant commanders promoted to those grades by reason of adjudgment as fitted for promotion, and recommended by the report of a selection board, as approved by the President, for retention on the active list, may be continued on the active list of the line of the Navy until they shall have completed thirty, twenty-eight, and twenty-six years, respectively of commissioned service (with which commissioned service shall be included service as a commissioned warrant officer, active commisioned service in the Naval Reserve Force, service as a midshipman after graduation from the Naval Academy, and service under a temporary commission in the Navy): *Provided,* That during such continuance on the active list they may become eligible for selection, subject to the provisions of section 7 (a) of this Act, as best fitted for promotion, and may be promoted consequent to such selection, but they shall not be eligible for consideration by any selection board for adjudgment as fitted for promotion: *Provided further,* That if such officers are not so selected as best fitted and if they twice fail of selection as best fitted they shall thereafter be ineligible for promotion: *Provided further,* That, if not so selected as best fitted, upon the completion of the periods of commissioned service stated in this subsection, they shall be placed upon the retired list on June 30 of the fiscal year in which they completed such commissioned service with retired pay computed as prescribed in subsection (b) of this section.

(e) When officers of the line of the Navy, other than commissioned warrant officers, have completed twenty-years' commissioned service, they may at any time thereafter, upon their own application, in the discretion of the President, be retired from active service and placed upon the retired list with retired pay computed as provided in subsection (b) of this section: Provided, That the Act of February 28, 1931 (46 Stat. 1431), insofar as the provisions thereof are embodied in section 388 (a) of title 34 of the United States code is hereby repealed.

(f) Captains, commanders, and lieutenant commanders promoted to those grades by reason of adjudgment as fitted for promotion but not recommended by the report of a selection board, as approved by the President, for retention on the active list shall be retired on the date they are so promoted with the retired pay of the grade from which so promoted: *Provided,* That such officers shall not be retired earlier than six months after the date of approval by the President of the report of the selection board in which they were adjudged fitted for promotion.

(g) Officers named in a report of a selection board, as approved by the President, in accordance with the provisions of section 9 (c), shall be honorably discharged on June 30 of the fiscal year in which so named: *Provided,* That such officers shall receive on discharge not more than one year's pay if lieutenants (junior grade), or two years' pay if of a higher grade.

(h) Officers on a promotion list who fail to pass the required physical examination for promotion and who are found incapacitated for service by reason of physical disability contracted in the line of duty shall be retired in the rank for which they were selected, or adjudged fitted, with retired pay at the rate of 75 per centum of the active duty pay of the grade to which selected or adjudged fitted.

(i) Officers who fail on the professional examination for promotion shall be honorably discharged with one year's pay if of less than twenty years' service; if of over twenty years' service they shall be retired on June 30 of the fiscal year in which they so fail with retired pay computed as in section 12 (b) of this Act.

(j) No officer on the active list of the Navy on the date of approval of this Act shall be retired in his present grade by reason of the provisions of subsection (b) of this section or in the next higher grade by reason of the provisions of subsection (f) of this section sooner than he would have been retired by reason of service ineligibility for consideration for selection under provisions of law in effect on the date of approval of this Act: *Provided,* That when any such officer shall have twice failed of selection as best fitted he shall become ineligible for consideration by subsequent selection boards.

(k) Officers now in the grades of lieutenant commander and lieutenant, and lieutenants (junior grade) now additional numbers on the active list of the Navy

XUM

by reason of the operation of the Act of March 3, 1931 (46 Stat. 1483), as amended, shall, at their own request, in lieu of the honorable discharge provided in subsection (c) of this section, he continued on the active list of the Navy until the completion of the period of service designated in the said Act, as amended, and shall then be retired as provided therein, but when they have twice failed of selection as best fitted they shall become ineligible for consideration by subsequent selection boards for promotion to lieutenant: *Provided,* That lieutenants who served in the Navy or Naval Reserve Force prior to November 12, 1918, and who shall have completed not less than twenty-one years of service shall on retirement as provided in this subsection be advanced to the grade of lieutenant commander on the retired list with the retired pay of that grade.

(l) All line officers of the Navy who have been specially commended for their performance of duty in actual combat by the head of the executive department under whose jurisdiction such duty was performed, when retired, except as provided in section 12 (h) of this Act, shall, upon retirement, be placed upon the retired list with the rank of the next higher grade and with three-fourths of the active-duty pay of the grade in which serving at the time of retirement.

Sec. 13. (a) Should it be found in time of peace at the end of any fiscal year that the average number of vacancies in the grade of rear admiral for the fiscal years subsequent to the passage of this Act has been less than eight, the Secretary of the Navy shall convene a board consisting of the Chief of Naval Operations, the Commander in Chief, United States Fleet, and the Commander Battle Force, to recommend for retirement a sufficient number of rear admirals to cause the aforesaid average number of vacancies.

(b) The report of the board shall be submitted to the President for approval or disapproval; if the President shall disapprove the recommendations of the board in whole or in part, the board shall then recommend additional officers for retirement equal in number to those disapproved by the President.

(c) Officers so recommended for retirement and approved by the President shall be placed upon the retired list on June 30 of the fiscal year of the approval of the report of the board, with retired pay at the rate of 75 per centum of their active-duty pay.

PROBATIONARY APPOINTMENTS OF OFFICERS

Sec. 14. (a) The Secretary of the Navy, under such regulations as he may prescribe, may hereafter revoke the commission of any officer on the active list, initially commissioned after the date of this Act, who, at the date of said revocation has had less than seven years of continuous service as a commissioned officer of the line of the Navy or of the Marine Corps, and each officer whose commission is so revoked shall be discharged from the naval service: *Provided,* That the selection boards considering lieutenant (junior grade) shall report the name of officers of that grade whom they consider lacking in aptitude for the naval service, and the commissions of officers so reported shall be revoked: *Provided further,* That no officer discharged by reason of revocation of commission within a period of probation shall receive advanced pay or allowances upon such discharge.

(b) If there be in any year an excess number of graduates of the Naval Academy available for commission in the line of the Navy over that number which in the opinion of the Secretary of the Navy, will satisfactorily meet the needs of the Navy for commissioned officers, such excess number of graduates shall be given a certificate of graduation and an honorable discharge with one year's pay if they are designated by the academic board of the Naval Academy as having an aptitude for the naval service: *Provided,* That only those midshipmen who are designated by the academic board of the Naval Academy as having an aptitude for the naval service shall be initially commissioned, all other graduates to be given a certificate of graduation and an honorable discharge without pay.

MARINE CORPS

Sec. 15. (a) The rank among themselves of officers of the Marine Corps appointed from sources other than the Naval Academy with the same date of commission shall be determined on promotion to first lieutenant by boards of officers under such rules as may be prescribed by the Secretary of the Navy, and the recommendation of such boards shall be final when approved by him.

(b) Section 1 of the Act of Congress approved May 29, 1934 (48 Stat. 811), is hereby amended to read as follows: "That hereafter commissioned officers of the

BENDIX-SCINTILLA

AIRCRAFT MAGNETOS

Contractors to the U. S. Army and Navy

On the engines of every commercial airline, and of all arms of the United States government service, Bendix-Scintilla Aircraft Magnetos have long been the approved ignition equipment. The preponderance of civilian aircraft, too, are Scintilla-equipped.

This preferment is traceable directly to Scintilla's efficiency and reliability and a reputation that no amount of pressure in the interests of price or production hurry will ever jeopardize.

SCINTILLA MAGNETO

DIVISION OF BENDIX AVIATION CORPORATION

Sidney, New York

Marine Corps shall be authorized in number in the same proportion to authorized enlisted strength and shall be distributed in grades, promoted, retired, and discharged in like manner and with the same relative conditions in all respects as provided for commissioned officers of the line of the Navy, by existing law, or by laws hereafter enacted, except as may be necessary to adapt the said provisions to the Marine Corps, or as herein otherwise provided: *Provided,* That except in time of war there shall be not more than fourteen general officers on the active list of the Marine Corps, exclusive of the heads of staff departments and additional numbers in grade.

(c) Section 11 of the Act of Congress approved May 29, 1934 (48 Stat. 812), is hereby amended by striking out the words "on a promotion list" and inserting in lieu thereof the words "selected as best fitted for promotion," and by striking out the word "not" and insecting in lieu thereof the words "removed from and not replaced," so that the said section shall read as follows:

Sec. 11. That an officer whose name is placed on an eligible list for appointment as head of a staff department shall not be again considered for that office by any subsequent selection board, except as otherwise provided in this section, and shall, in respect to involuntary retirement, be in the same status as if selected as best fitted for promotion: *Provided,* That the Secretary of the Navy may, in his discretion, with the approval of the President, remove his name from such list and submit it to the next ensuing selection board for consideration and recommendation. If recommended for appointment by said board and approved by the President, the name of such officer shall be replaced on the eligible list from which removed without prejudice by reason of its having been temporarily removed therefrom. If not recommended by said board, such officer shall be subject to involuntary retirement under the same conditions as provided for in the case of an officer whose name is removed from and not replaced on a promotion list."

(d) Hereafter the authorized enlisted strength of the active list of the Marine Corps shall be at all times 20 per centum of the total authorized enlisted strength of the active list of the Navy, exclusive of the Hospital Corps, prisoners undergoing sentence of discharge, enlisted men detailed for duty with the Naval Militia, and the Flying Corps.

(e) Should it be found in time of peace at the end of any fiscal year that the average number of vacancies in the grade of general officer of the line of the Marine Corps for the fiscal years subsequent to the passage of this Act has been less than two, the Secretary of the Navy shall direct the board provided for in section 13 of this Act to recommend for retirement a sufficient number of general officers of the line to cause the aforesaid average number of vacancies, the approval by the President of the recommendations and the retirement of the general officers to be effected under the same conditions as provided for in that section for rear admirals of the Navy.

(f) The provisions of this Act relating to selection boards designating officers whom they adjudge fitted for promotion shall not apply to brigadier generals of the Marine Corps and when such officers twice fail of selection as best fitted, as defined in section 9 (a) of this Act, they shall be placed on the retired list on June 30 of the fiscal year in which they fail of selection as best fitted the second time, with retired pay at the rate of 75 per centum of their active-duty pay.

(g) Whenever there are insufficient general officers available to comprise a selection board for the recommendation of officers for promotion to the grades of brigadier general and colonel without placing thereon general officers who served as members of the same corresponding board the preceding year, except the Commanding General, Fleet Marine Force, line officers of the Navy of the grade of rear admiral of the line may be substituted for general officers of the Marine Corps in order to comply with the provisions of section 5 (c) of this Act.

MISCELLANEOUS PROVISIONS

Sec. 16. (a) The provisions of this Act shall not apply to officers of the Staff Corps of the Navy.

(b) The Secretary of the Navy shall prescribe regulations whereby a uniform system of establishing a record of the efficiency of officers may be employed throughout the Navy.

REPEAL PROVISIONS

Sec. 17. All laws or parts of laws inconsistent with the provisions of this Act are hereby repealed, and the provisions of this Act shall be in effect in lieu thereof.

Approved, June 23, 1938.

SAFEGUARDS YOU AND YOURS

Security, more than any other one thought, is uppermost in the minds of men today. As a result more and more people are turning to life insurance as a means to security. Service men are no exception and we therefore have present among our advertisers in this issue the United Services Life Insurance Company.

This company is unique in that it is owned by service men and operated exclusively for service men. Its avowed purpose is "to increase and better the life insurance estate of the service man at the lower cost that his preferred status warrants." The company will also cooperate with service organizations for the common good.

Incorporated under the laws of the District of Columbia, with home offices in Washington, D. C., the company is operating as an old line legal reserve company. Its stockholders, with the exception of insurance officials holding qualifying shares, are all commissioned officers of the Army, Navy, Marine Corps, Coast Guard, Coast and Geodetic Survey, and the United States Public Health Service. The directors of the company include: Edward A. Ostermann, U. S. Marine Corps; Leon C. Covell, U. S. Coast Guard; Harry R. MacKellar, Medical Corps, U. S. Army; Lucius K. Patterson, Medical Corps, U. S. Army; O. R. Leverett and S. H. Emerson, the two last named being skilled insurance executives.

It is entirely logical that only through the medium of a company especially organized for the purpose can the service man get full, complete and unrestricted insurance protection at rates commensurate with his situation. We are glad to see that service men are alive to the opportunities to better their lot through cooperation.

XUM

Squad Musketry Problems Which Can Be Fired on Rifle Ranges •

By Captain John S. Letcher, U.S.M.C.

THE object of this article is to supplement Major Lienhard's very excellent article, "Rifle Marksmanship Training," which appeared in the December, 1938, issue of The Marine Corps Gazette. Major Lienhard voices what I believe are the opinions of a large number of officers of the Marine Corps who believe that musketry is important and that high qualifications and team firing should not be the only objectives of our marksmanship training. Major Lienhard has been a member of Marine Corps Rifle and Pistol teams for years and is a recognized expert on rifle shooting. In addition he is an officer who has had much actual combat experience and his opinions in regard to our marksmanship training should be given careful consideration.

For me to attempt to supplement anything which Major Lienhard says about rifle shooting is somewhat presumptuous because I am not a good shot and my rifle shooting experience has been rather limited. However, I believe that having men fire the musketry problems set forth in this article may assist in giving some of the training which Major Lienhard believes should be given them.

Musketry training is slighted in the Marine Corps at many posts. The excuse is that there is no musketry range available to use for problems. This unfortunately is true, but nearly every post has a rifle range and the problems set forth in this article can all be fired on a rifle range. They will not teach the men everything that could be taught on a range especially designed for musketry firing, but they do teach some essentials of musketry and give infinitely more training than not firing at all.

These problems teach distribution of fire which is all important in combat firing. They teach the men to fire at targets (dark or pale green or khaki colored silhouettes) which somewhat resemble battle targets. They require firing at moving targets, moving at various speeds. They teach the men to use the battle sight at all battle ranges. They require the men to shoot with unblackened sights, without padded clothing, with or without slings, in positions behind cover and also while wearing the clothing of the season. They give the men confidence in their ability to hit battle targets and they give the corporals some slight experience in controlling their squads on the firing line.

They do not teach range estimation which is of great importance. They do not provide for surprise targets on the flank. They are not conducted over rough or varied terrain. The bullets striking the butts allow the men to observe their fire better than they would be able to do under most battle conditions.

The problems are set forth just as they were published before they were fired. Anything we learned from one problem was used in drawing up the next one.

PROBLEM NO. 1

1. *Personnel*: (a) One infantry squad. Squad leader, directing his squad, not firing. Six men armed with service rifles and 40 rounds of ammunition each. One man armed with a BAR and 80 rounds of ammunition.

2. *Procedure*: (a) Patrol leaves rifle range compound with scouts out one hundred yards ahead of the patrol. When scouts reach the 500 yard line, targets (7 silhouette "E" targets) will appear and problem time will begin. At this time all members of the patrol except the scouts must be in rear of the 600 yard firing point. The scouts commence firing and the squad leader sends men up one at a time to build up the firing line. This means that when one man leaves the 600 yard line to run up to the 500 yard firing point, no other man can be sent up until he takes the prone position on the 500 yard firing line. When all the targets are hit, they will all be taken down.

(b) When all targets are down, the squad leader will be allowed to rush his entire squad to the 300 yard firing point. Before his squad reaches the 300 yard firing point, he will direct his squad to use battle sights and fire on the targets (7 "F" silhouette targets). When all targets are hit they will all be taken down.

(c) When all targets are down, the squad leader will be allowed to rush his entire squad to the 200 yard firing point. Before his squad reaches the 200 yard firing point, all targets (7 "F" silhouette targets) will reappear spread at equal intervals across the target butts and will be moved to the right and then to the left until all have been hit. When all targets have been hit they will all be taken down and the problem time will cease.

(d) When the problem is finished, all men will remain in position on the 200 yard firing point and all ammunition will be turned in to the problem umpire who will count the number of rounds turned in. The pit umpire will count the holes in all targets and report the total number of holes. The score will be computed as follows: The number of rounds turned in will be subtracted from the total number of rounds issued (320), which will give the number of rounds fired. The total number of holes in all targets will be divided by the problem time, in minutes, multiplied by the total rounds expended and the result will be the score for the squad. For example, squad No. 1 completes the problem in 12.3 minutes and turns in 110 rounds of ammunition. This means that 210 rounds were expended. The total number of hits was 70. The score would be:

$$\frac{70}{210 \times 12.3} \text{ equals } \frac{70}{2583} \text{ equals .0271 score.}$$

Squad No. 2 completes the problem in 13.4 minutes and turns in 130 rounds of ammunition. This means that 190 rounds were expended. The total number of hits was 80. The score would be:

$$\frac{80}{190 \times 13.4} \text{ equals } \frac{80}{2546} \text{ equals .0314 score.}$$

XUM

So, Squad No. 2 has the best score, showing a higher number of hits per round, per minute, than Squad No. 1.

RULES

(1) When men build up the firing line, rifles cannot be loaded until men are in position on 500 yard firing point.

(2) When squad rushes are made from 500 yard firing point to 300 yard firing point and from 300 yard firing point to 200 yard firing point, rifles must be locked and carried pointing to the front and the squad must advance in regular lines, no man in front of others or behind them. Failure to observe these safety precautions will be cause for elimination of the squad from competition.

(3) BAR men will be given 10 rounds to sight in their weapons before the problems are fired.

In order to determine the year's standing in musketry for each squad in the company scores on problems will be counted as follows: There are eight squads in the company so the squad making the highest score on a problem will be given a mark of 8, the squad making the second highest score a mark of 7 and so on until the squad making the lowest score gets a score of 1. Each problem will be given a problem weight of 1 point for each 10 rounds of ammunition issued to a rifleman. Thus the problem weight of Problem No. 1 will be 4 since each rifleman will be issued 40 rounds of ammunition with which to fire the problem. The problem weight of Problem No. 2 will be 3 since only 30 rounds of ammunition will be issued to each rifleman. The points scored by a squad in each problem will be the squad's mark multiplied by the problem weight. The total of points scored in all problems will determine the squad's standing for the year, the squad having the largest total standing first, the next largest second and so on. Platoon standings will be determined by the total of the points of the squads of each platoon.

In cases where two or more squads do not finish a problem their comparative scores for the problem will be determined by which has the highest percentage of hits, time will be disregarded.

In this first problem the prone position was used at all ranges and the use of the peep-sight was allowed at 500 yards. In the succeeding problems only the battle-sight was used. Squad organization was kept in all problems. When for any reason there were only five men or six men in a squad firing they were issued the same total amount of ammunition (320) rounds as a full squad and when the score was computed their time was multiplied by a fraction either 5/7 or 6/7 to remove the handicap of having fewer men. The provision for leaving all targets in place until they were all hit instead of removing them one by one as they were hit is very important if distribution of fire is to be learned. If targets are taken down as soon as they are hit, as I have seen done in some musketry problems, the men will not distribute their fire properly. They will shoot at one target until it is hit and then move to another, but they will not distribute their fire in the manner specified in the Basic Field Manual on Musketry.

The best score made for this problem was .0582, 77 rounds were fired, 25 hits were made and the time was 5.58 minutes. The second best score was .0407. 174 rounds were fired, 65 hits were made and the time was 9.18 minutes. Two squads expended all their ammunition, but failed to finish the problem. This failure was not due to poor marksmanship, because in both cases there were between twenty and twenty-five per cent hits. It was due to poor distribution of fire, resulting in some targets being hit a great many times and other not at all.

PROBLEM NO. 2

1. *Personnel*: (a) One infantry squad. Squad leader, directing his squad, not firing. Six men armed with service rifles and 30 rounds of ammunition each. One man armed with a BAR and 60 rounds of ammunition.

2. *Procedure*: (a) *First Stage*: Squad takes skirmish formation in front of 200 yard firing point in standing position and advances forward towards the butts rifles loaded and locked. When the skirmish line is somewhere between 175 and 150 yards from the butts 7 targets ("E" silhouettes) come up. All men take the prone position and fire as fast as possible at the targets which will stay up above the butts for 25 seconds. The targets may be bunched together in groups or equally paced over the butts. They may appear anywhere along the top of the butts.

(b) *Second Stage*: After the completion of the firing in the 1st stage all men rise from the ground, reload and lock their pieces and walk in regular line to the 100 yard firing point. Five targets ("E" silhouettes) will appear at one end of the butts and cross the butts between target number boards 3 and 11 at a fast walk. The targets will all come up together and be a few yards apart like a patrol of soldiers. They will move across the top of the butts and go down at the other end. The squad firing will fire from the standing position and will not unlock their pieces until the targets appear.

(c) *Third Stage*: After the completion of the firing in the 2nd stage all men reload and lock their pieces and move to the 50 yard firing point. A succession of five targets ("E" silhouettes) move one at a time from either right to left or left to right at a fast run between target number boards 4 and 10. All men fire at the targets from the standing position. Rifles can be unlocked before the targets appear.

(d) *Fourth Stage*: After the completion of the firing in the 3rd stage all men move to the 25 yard firing point. Five targets ("E" silhouettes) move one at a time from left to right or from right to left across the butts between number boards 5 and 9 at the fastest run possible, stopping, jumping, etc. All men fire from the standing position.

3. *Scoring*: After each stage all holes in the targets are

Protects your Uniforms — Gives longer wear!

VULTONE
INSURED AND BONDED
MOTH PROOFING PROCESS

The VULTONE mothproofing process is included with every Kassan-Stein hand tailored Uniform or civilian garment—at NO EXTRA COST. Eliminates moth and insect damage in every climate—eliminates storage and repair charges.

KASSAN-STEIN
Uniform and Custom Tailors
510 Eleventh St., N. W. Washington, D. C.

XUM

counted and recorded by the pit Referee Officer. Any targets having no hits on them are counted and recorded for each stage. After completion of firing of the fourth stage all unexpended ammunition is collected and counted and deducted from the amount issued (240 rounds) to obtain the total number of rounds fired. The score is computed by dividing the number of hits on all targets at all stages by the rounds fired to give the hits per round and then multiplying the hits per round by the total number of hits.

$$\text{That is score} = \frac{\text{TOTAL HITS}}{\text{TOTAL ROUNDS FIRED}} \times \text{Total Hits.}$$

At any stage where targets are missed entirely a fractional part of the hits made at that stage will be deducted for the targets missed. For example at the 1st stage if two of the seven targets are missed and there are 28 hits on the other five targets 2/7 or 8 of the hits will be deducted and the score computed on the basis of 20 hits for the 1st stage.

RULES

(1) Battle sight will be used at all ranges.

(2) Violations of rules as to pieces being locked will cause elimination of a squad from competition. Corporals must caution all men to lock pieces at the proper time and not unlock them until targets appear or an order is given to unlock them.

This problem was designed to give men practice in firing rapidly at targets appearing suddenly and for a limited time and also for targets moving at different speeds at short ranges. The targets used in the fourth stage firing were fastened on long poles so that vertical as well as horizontal movement could be given to them as they moved across the butts. Specifying that the targets be moved only between certain target number boards was necessary for reasons of safety to prevent men at close ranges from shooting too near the man next to them on the firing line and also to prevent them from shooting past the end of the butts. For the same reason it was found desirable to have the men on the firing line gradually close in towards the center of the line and reduce the intervals between them as they progressed from one stage to the next and drew nearer to the targets.

The best score made for this problem was 144.96. 216 rounds were fired and 177 hits were made.

The provision for scoring this problem of multiplying the hits per round by the total hits places a premium on rapid firing which this problem was designed to teach.

PROBLEM NO. 3

1. *Personnel*: (a) One infantry squad. Squad leader directing his squad, not firing. Six men armed with service rifles and 40 rounds of ammunition each. One man armed with a BAR and 80 rounds of ammunition.

2. *Procedure*: (a) Squad in skirmish formation leaves the 500 yard firing point. When the squad is somewhere between 450 and 400 yards from the butts 7 targets ("E" silhouettes) will appear and problem time will begin. The members of the squad take the *prone position* and open fire and when all targets are hit they will all be taken down.

(b) When all targets are down the squad leader will advance his squad in regular line to the 300 yard firing point. Before he reaches the 300 yard firing point 10 targets ("F" silhouettes) will appear. The members of the squad will take the *sitting position* on the 300 yard firing point and open fire. When all targets are hit they will all be taken down.

(c) When all targets are down the squad leader will advance his squad in regular line and when the squad is somewhere between 250 and 200 yards from the butts 10 targets ("F" silhouettes) will appear. The members of the squad will take the kneeling position in rear of the 200 yard firing point and open fire. When all targets are hit they will all be taken down and problem time will cease.

(d) Scoring same as in problem No. 1.

RULES

(1) Battle sight will be used at all ranges.

(2) Sling can be used as desired.

(3) When squad rushes are made from 500 yard firing point to 300 yard firing point and from 300 yard firing point to 200 yard firing point, rifles must be locked and carried pointing to the front and the squad must advance in regular lines, no man in front or behind others.

In this problem increasing the number of targets made the proper distribution of fire more essential than ever. Ranges between the even hundreds of yards were used for two of the ranges, but when using the battle-sight and firing a flat trajectory weapon this does not add any appreciable difficulties.

The squads of one platoon fired this problem with very poor light and the squads of the other platoon fired in a strong wind, estimated at twenty miles per hour velocity. Both days were cold, the temperature being about twenty-two degrees Fahrenheit, and men fired wearing fur caps, overcoats, and gloves. These conditions made accurate

Private Telephone Systems by AUTOMATIC ELECTRIC

Produced by the originator of the automatic telephone, Automatic Electric private telephone systems have a background of over forty-five years of successful application and constant improvement. They are noted for their instant response, accurate operation and rugged, reliable construction.

These qualities have proved to be of particular value in the service of every branch of national defense, where equipment must function with unfailing regularity, even under the most adverse and difficult conditions. For complete information, address American Automatic Electric Sales Company, 1033 West Van Buren Street, Chicago, Illinois.

AUTOMATIC ELECTRIC

TELEPHONE, COMMUNICATION AND SIGNALING PRODUCTS

shooting difficult, but gave the men good experience in firing in cold weather while wearing winter clothing.

The best score made for this problem was .0311. 218 rounds were fired, 61 hits were made and the time was 9.00 minutes. Two squads expended all ammunition but failed to hit all the targets and so did not finish the problem.

PROBLEM NO. 4

1. *Personnel*: (a) One infantry squad. Squad leader directing his squad, not firing. Six men armed with service rifles and 40 rounds of ammunition each. One man armed with a BAR and 80 rounds of ammunition.

2. *Procedure*: (a) Squad in skirmish formation leaves the 400 yard line. When the squad is somewhere between 350 and 300 yards from the butts 3 targets ("E" silhouettes) will appear and problem time will begin. The members of the squad take the *offhand position* and commence firing and when all the targets are hit they will all be taken down.

(b) When all targets are down the squad leader will advance his squad in regular line to the 300 yard firing point and take position *behind* the point using it for cover. Men may use any position they desire for firing but must use the rear slope of the firing point for cover. Before the squad reaches the 300 yard point 10 targets (4 "E" silhouettes and 6 "F" silhouettes) will appear. When all targets are hit they will all be taken down.

(c) When all targets are down the squad leader will advance his squad in regular line to the 200 yard firing point and take position *behind* the point using it for cover. Men may use any position they desire but must use the rear slope of the firing point for cover. Before the squad reaches the 200 yard point 10 targets (4 "E" silhouettes and 6 "F" silhouettes) will appear. The "E" silhouettes will be moved at a walk back and forth along the top of the butts, not to be moved in unison, but individually. When all targets are hit all targets will be taken down and problem time will cease.

(d) Scoring same as in problem No. 1.

RULES

(1) Battle sight will be used at all ranges.

(2) The sling need not be used, but if used will be used only in the hasty sling position.

(3) All firing will be done in overcoats and gloves.

(4) When the squad advances from one firing position to another rifles must be locked and carried pointing to the front and the men must advance in a regular line, no men in front or behind others.

In this problem targets of different size were used which increased the difficulty of fire distribution because even when men have been thoroughly schooled in the theory of fire distribution they will almost invariably fire at the more prominent targets more often than at the less prominent ones. Another point in this problem was to require the men to take cover behind the firing points and shoot over them using whatever positions they believed to be best or whatever positions they found they could use. Not being accustomed to firing from such positions caused some men considerable difficulty in shooting accurately. Training on varied terrain would teach men to adopt positions suitable for firing from behind different kinds of cover. Generally on a rifle range the only thing which can be done is to make them fire from behind firing points or from the ditches in front of firing points. In the last stage of this problem some of the targets were moved while others remained still, this made fire distribution more difficult and also made the target conditions more closely resemble battle conditions.

The best score made on this problem was .1460, a phenomenal score. 75 rounds were fired, 47 hits were scored and the time was 4.29 minutes.

The musketry problems which we have fired here at Peiping and which I have copied into this article are not set forth as models, but merely as examples of what can be done on any rifle range. They were all written by me and can probably be greatly improved upon in many ways. They do, however, give the men training in some of the elements of musketry which I enumerated at the beginning of this article and with some revision they might give training in still other elements which at present they do not.

In addition to their primary object of training men in musketry these problems also greatly stimulated morale in the Company. The system of scoring each problem and keeping the standings of squads and platoons published on the Company Bulletin board aroused keen interest and rivalry among the men. Men join the Marine Corps primarily to be soldiers and if the training is made practical and interesting and if the men see its value they become enthusiastic about it. When they feel that their fighting efficiency is being increased and when there is also a competitive spirit about the training, then, to use a popular expression of today, "You've got something there," and you can feel that you are accomplishing something.

The following account of some personal experiences is not a part of the foregoing article, but since the experiences bring out some points in regard to rifle shooting and marksmanship training I will relate them here.

On the 12th of January I returned from a two weeks' hunting trip in North Manchoukuo. Most of the hunting was for deer in a country of low mountains covered with patches of small second growth trees and not much underbrush. About eight inches of snow was on the ground except on very steep slopes where it had been blown away. The temperature varied between 20 and 45 degrees Fahrenheit below zero.

The deer were stalked on foot and the hunting was excellent training for fighting in such a country. Shooting was at ranges of from 200 yards to 400 yards and several points arose which concern our rifle and our marksmanship training which were a considerable surprise to me.

First I found that the peep-sight, which we use to fire 52 of the 72 rounds of our qualification firing, is utterly useless when trying to fire at an indistinct target or one moving even at a very slow walk. On one occasion which I particularly remember, I saw a deer walking very slowly along the bare side of a very steep hill. The deer was in plain view, easy to see. I took the kneeling position, set the peep-sight for the range which was about 200 yards and tried to aim at the deer, but his color was almost the same as the color of the bare hill side and I couldn't find him through the peep-sight, two or three times I removed my eye from the sight and immediately saw him clearly but was unable to find him when I tried to look through the peep-sight. Finally I got him in the peep-sight but just as I was ready to squeeze off the shot he stepped out

(Continued on page 57)

XUM

Decorations

13 March, 1939.

Sir:

The President of the United States takes pleasure in presenting the DISTINGUISHED SERVICE MEDAL to:

COLONEL MAURICE E. SHEARER, U.S.M.C., for service during the World War as set forth in the following CITATION:

"For exceptionally meritorious service to the Government in a duty of great responsibility as Commanding Officer of a machine gun company of the Sixth Marines. He participated in the occupation of the Toulon-Troyon sectors March 18-May 13, 1918; took part in the engagements in the Chateau-Thierry sector, and about June 15, 1918, he was detailed to command the Third Battalion of the Fifth Marines. He served in that capacity during the remainder of the battles in the Chateau-Thierry sector, and the battle southwest of Soissons; the occupation of the Marbache sector and the battle of St. Mihiel. After the signing of the Armistice he served as assistant to the Officer in Charge of the Department of Administration during the march to the Rhine and the occupation of the Coblenz Bridge Head. Colonel (then Major) Shearer's conspicuous and meritorious service was performed in a highly efficient manner."

For the President.

(s) WILLIAM D. LEAHY,
Acting Secretary of the Navy.

---

22 March, 1939.

The President of the United States takes pleasure in presenting the DISTINGUISHED FLYING CROSS to

MAJOR CLAYTON C. JEROME, U.S.M.C.,

for outstanding service as set forth in the following:

CITATION:

"For distinguished conduct and extraordinary achievement while participating in a number of aerial flights in connection with the search for and rescue of the survivors of a Venezuelan airplane crash. On April 23, 1937, an airplane belonging to Venezuelan Government, carrying nine persons, crashed in the dense jungles of the Cuyuni, as a result of which two of the occupants were killed and the remainder injured in varying degrees of seriousness. Captain Jerome, then serving as Naval Attache and Naval Attache for Air to the American Legations in Colombia, Venezuela and Panama, reported promptly from Panama in response to the request for aid of the American Minister to Venezuela, and for ten days made almost daily flights over extremely hazardous and unexplored mountain and jungle terrain and, during that time also, selected and prepared for possible use in evacuating the survivors, a channel in the narrow Cuyuni River where his amphibian plane could land. When the survivors were finally located, to which end his thorough and tenacious searching contributed materially, he showed rare flying skill and courage in twice landing in the narrow jungle river, with protruding rocks and overhanging trees, and in bringing out to safety four occupants of the ill-fated plane, one of whom was most seriously injured. The take-off from the very narrow river, having numerous obstacles, was most hazardous. His conduct, foresight, courage and flying skill on this occasion were distinguished and outstanding."

For the President.

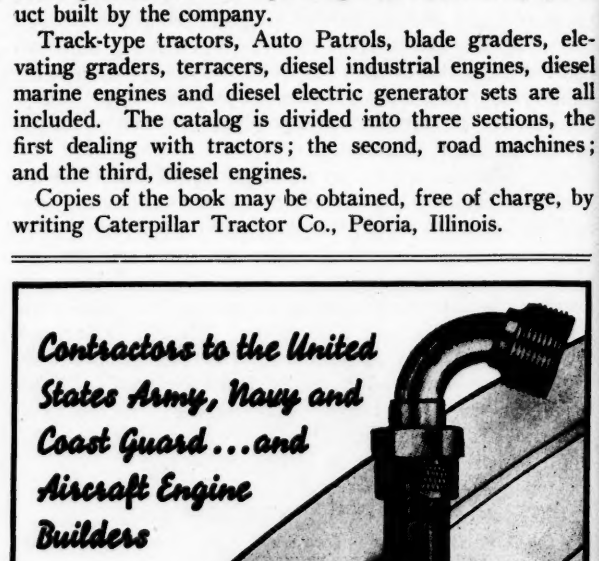
WILLIAM D. LEAHY,
Acting Secretary of the Navy.

A composite catalog, covering the entire "Caterpillar" line, has been issued for 1939 by Caterpillar Tractor Co.

Illustrated profusely with model photographs and cutaways to show mechanical features, the booklet gives brief specifications and operating data about every product built by the company.

Track-type tractors, Auto Patrols, blade graders, elevating graders, terracers, diesel industrial engines, diesel marine engines and diesel electric generator sets are all included. The catalog is divided into three sections, the first dealing with tractors; the second, road machines; and the third, diesel engines.

Copies of the book may be obtained, free of charge, by writing Caterpillar Tractor Co., Peoria, Illinois.


Contractors to the United States Army, Navy and Coast Guard ... and Aircraft Engine Builders
Patented in the United States and Other Countries
MICA AVIATION SPARK PLUGS
THE B. G. CORPORATION
136 WEST 52nd STREET, NEW YORK

Beachhead Line Italian (Tripoli 1911)

By Joseph T. Crowley

BEFORE entering into a description of the military phase of the Italian occupation of Tripoli, I am sure a brief explanation of some of the reasons for the invasion would be quite acceptable to the military man. Usually he takes situations as he finds them and then has to act accordingly. Here in brief, the set up for the entry of the military on the African scene is thrown on the screen for all who are interested to see. The excuses, the ballyhoo, the diplomatic efforts, and the various attempts to convert minor incidents into affairs of international concern, are nothing more than a preview of what was to come twenty-five years later in Abyssinia.

In October, 1911, the Italian forces landed in Tripoli to claim once again for the Roman eagles an old province of Augustus. (Where have we heard that before?) Actually the hostile act had been planned for some time, aided and abetted by the various commercial and financial interests of the day. The most prominent and powerful of these interests was the Banco di Roma. For some years it had pacifically been penetrating Tripoli. It acquired hugh tracts of land, established and financed corn mills and various other industrial undertakings.

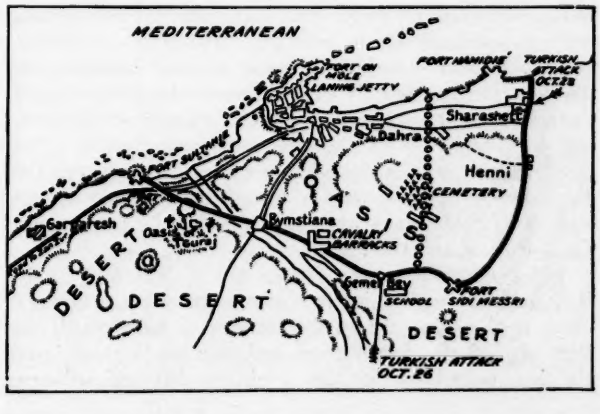
The Turks at that time were in possession of Tripoli and naturally resented the entrance of the Italians into the North African trade mart on such a large scale.

They placed every obstacle possible in the way of the Italians when they could do so. No one can blame them for this since the primary purpose of the bank was to undermine Turkish rule in Tripoli and clear the way for the entry of the Italians. The Ottoman Government also refused to grant to the Banco di Roma any monopolistic concessions. To top it all a German financial concern was allowed to establish itself in Tripoli and in a short time showed a decided profit for the stockholders, while the Banco di Roma, due to ruinous speculation in land, found itself well in the red. The Banco had bought up these enormous tracts of land in the hope of an Italian invasion; and if the invasion didn't come soon ye Banco would have to fold up.

Signor Pacelli, director of the Banco di Roma, and his Tripolitan representative Signor Bresciana moved mountains in their efforts to have Italian troops save their bacon. A chain of international events developed which culminated in the granting of the Banco di Roma's hearts desire. Prior to these times Tripoli had been looked upon by the Powers as a sort of free range which any one had the right to annex but no one quite dared to. France was afraid of an English seizure of Tripoli until the concluding of the Anglo-French Entente. Italy was suspicious of France and feared an invasion of Tripoli from Tunisia. Both France and England were in dread that Germany might establish a naval base in the Bay of Bomba.

Immediately after the Agadir incident preparations for war were hurriedly and quietly made by the Italians. Italian politicos saw that the recent Anglo-French Entente would occupy the attention of Austria and Germany for some time to come, and that now was the time to seize Tripoli. However, England had to be considered, because if it wished it could have hindered the Italian plan by allowing the Turks to come through Egypt to the scene of the hostilities. England, therefore, had to be sounded out with regard to Tripoli (imagine them passing it up if it was any good), and her attitude toward Italy guaranteed friendly before war could be declared. Through the good offices of Italian and English politicos, England guaranteed non-intervention, nay, she even sent Lord Kitchener to Egypt for the express purpose of seeing that the Turks did not advance to the scene of the hostilities via the Nile Valley corridor. He accomplished this by the erection of a line of fortifications along the Eastern desert line of the Suez Canal.

Turkey's position at this time was peculiar, not to say the least. She had held Tripoli for twenty-five years or more, but being unable to develop it had sealed it up. Its great distance from Turkey and the fact that Turkey had no navy to speak of, caused this last outpost of the Sublime Porte to be already lost to them. Around the time of which we speak, she had made a few convulsive movements, like unto the attempts of a worn out roue to keep up with the rest of the crowd. One of these spasms took the form of placing an able and energetic soldier, Mahmud Shefket Pasha, in command of her armed forces. He was proceeding to rapidly reorganize the army and restore her more important fortifications. (Remember Gallipoli.) His next move was to have been the strengthening of the Tripolitan garrison with good Turkish troops and the formulating of some scheme of harbor defense for the place. Had not trouble in Arabia intervened, Italy's chance for invasion would have been gone forever. The Arabian trouble caused him to withdraw the bulk of the troops from Tripoli instead of increasing them. But before he took one man from that station, he asked the Premier Hakki Bey if he could guarantee the absence of hostile intent against Tripoli on



the part of Italy. Hakki Bey had been ambassador to Italy, had married an Italian woman, and liked the Italians. He was firmly persuaded that Italy would never attack Tripoli and so he gave the fatal word of assurance, and the troops were withdrawn. Through the machinations of the Italian politicos the Vali, or governor, of the province was removed. He was a fine military leader and would have given the invaders plenty of trouble had he been retained. In vain did Marshal Ibrahim Pasha protest, out he went and in went an Italian favored gentleman, very old and senile, and with no military knowledge whatsoever. Therefore, when the Italians were ready to invade Tripoli, the garrison of that place was reduced by over two-thirds of its original strength. The lowest it had ever been in all the years of Turkish rule.

One can not but help admire the Italians for the skillful way they attained their objective. By a series of intrigues and international dust throwing they achieved their immediate objective, that is the invading of Tripoli when the garrison there was at its weakest. Italy's sentimental claim on the province because it was filled with Roman remains and she is heir to the togas of the Scipios will not hold water, for many of the countries of Europe were once Roman outposts. Then too was advanced a cry that we have heard in our own times, Vengeance for Adowa and the desire to turn the people away from their own domestic troubles.

The Romans Land

On October 3, 1911, at 9.35, Neciat Bey, commander of the garrison of Tripoli, received word from his government of the formal declaration of war between Italy and Turkey. Six hours later the Italian fleet opened fire on the town. With so short a notice little could be done to levy native troops, and put the place in a real state of defense. Upon the urgent pleadings of the various foreign consuls, Nesciat Bey agreed to evacuate the town in order to avoid unnecessary casualties among the civil population. He left, however, a force of eight artillery men in each of the forts on the east and west sides of the town so that it could not be said that he left it without a struggle.

At 3.35, October 3, the Commander-in-Chief of the Italian fleet gave the order to commence firing. The fleet was divided into two divisions of three ships each. The 1st division being the *Sardegna, Re Umberto* and *Sicilia,* commanded by Admiral Borea-Ricci. The 2nd division was composed of inferior vessels, the *Emanuele Filiberto, Brin,* and *Carlo Alberto.* On board the *Brin* was Admiral Faravelli, commander-in-chief. The forts which these vessels were to bombard can be seen by a glance at the sketch. On the Eastern edge of the oasis is Fort Hamidie, on the west in the desert is Fort Sultanie. In the city itself there is a battery near the lighthouse, another on the landing jetty and also one on the northwest bastion. The *Brin* division was to destroy the center fortifications, the *Re Umberto* division was to engage the Sultanie battery and the Hamidie guns were to be silenced by two vessels, the *Garibaldi* and the *Ferruccio.*

The bombardment was a tame affair. The men in the land batteries replied ineffectually as the guns would not carry to the ships. From the distance of 3,000 yards the fleet shelled the fortification and surrounding territory. So close were they that they could not have missed even if they tried. The *Re Umberto* division pounded the tar out of Fort Sutanie. For over an hour the ships defiled slowly in front of the fort firing steadily; the fort replying ineffectually every fifteen minutes. Finally the fort ceased firing altogether, but the gallant *Re Umberto* continued to wallop it until 6 o'clock that evening. Fort Hamidie took a terrific whaling from the *Garibaldi, Ferruccio* and *Varese,* the bombardment of this position consuming two days and plenty of ammunition. When the naval gunfire had ceased, the Italians sent a party ashore to the ruins of Fort Hamidie to destroy any guns that might be found there. The account of the landing of this party in the face of enemies who had abandoned the fort and were already over ten miles distant, reads like the score of a Gilbert and Sullivan opera, the high light of the landing being the excitement which pervaded the entire fleet when the landing party became lost in the smoke of the explosions that attended the destruction of the Turkish guns. Italian newspaper men with the fleet wrote: "that impenetrable smoke seemed to be the winding sheets of our heroes."

Fortunately a gust of wind blew the smoke away and revealed to the watchers of the fleet the heroic band milling around near the destroyed fort.

During the afternoon of the second day sailors were landed in two groups, one at Fort Sultanie and the second party between the city and the fort. This was accomplished without meeting resistance from any quarter. In this landing 1,700 sailors were employed. They were amazed

ANYWHERE AT ANYTIME

COOK'S

WORLD'S OLDEST
AND FOREMOST TRAVEL
ORGANIZATION

•

FOUNDED IN 1841

•

353 OFFICES
THROUGHOUT THE
WORLD

•

PASSENGER AGENTS
FOR ALL LINES

•

COOK'S
TRAVELER'S CHEQUES

THOS. COOK & SON—WAGONS-LITS INC.
587 Fifth Avenue, New York

Philadelphia Boston Baltimore Washington Atlanta
Pittsburgh Chicago San Francisco Los Angeles
Beverly Hills Toronto Montreal Vancouver Mexico City

at their unopposed landing and were immediately put to guarding the walls and houses of the city, no thought being given to establishing local security. The next day someone in authority awoke to the unpleasant fact that the only source of fresh water supply was unguarded. This was located south of Tripoli at Bumeliana, and consisted of one well. Placing a garrison at this important point constituted the first attempt by the Italians to advance any distance in any direction. Gradually the Italians pushed their line outward from the city proper until it embraced nearly all the oasis. With the exception of a small force of marines at the landing force headquarters, no reserve existed. The entire force of 1,700 men formed a thin line about the oasis, of which the Turks and Arabs were aware and which weakness they attempted to take advantage of several times during the next few days. Had the Turks been able to collect enough native levies, the story of the invasion of Tripoli would have taken on a different aspect. Several times they made abortive attempts to carry Bumeliana, but lacking sufficient fire-support were unsuccessful. They suffered few casualties, thanks to the poor marksmanship of the Italians.

Admiral Faravelli finally awoke to the fact that the only reserve that he had was the fleet, whose assistance could be rendered useless by the sudden rise of a storm. He frantically called for the army that was then being mobilized in the home land. At last, on 11 October, 1911, troops landed and relieved the harassed seamen. The entire expedition was then placed under the command of Lt. Gen. Carlo Caneva who proclaimed himself Governor General of Tripoli.

The battling around Tripoli town was really one continuous conflict, which lasted from 6 October to 4 December. It is not the purpose of this article to indulge in a lengthy discussion of the entire Tripolitan campaign, that has been already done by persons far better qualified than the writer. This article merely proposes by a brief recitation of the facts to disclose errors in the Italian dispositions, which become self-evident upon perusal.

General Caneva disposed his entire force in a great semi-circle about Tripoli, repeating the same error made by his sailor friend and providing for no reserves. Both ends of the line terminated on the sea. On the West was Gargaresh, on the East the palm huts of Sharashett, southward was Bumeliana, the source of the water supply and the scene of a great deal of early Turkish activities. Between Bumeliana and Sharashett were located the old Turkish cavalry barracks, and Sidi Mesri and Fort Henni, the radius of the semi-circle being the city itself.

Initially Caneva's troops did not occupy all of the oasis, part of the line ran from Sidi Mesri to Sharashett and was not entrenched by them, in fact they were so surrounded by trees at this point that they had no field of fire, so that when the Turks and Arabs attacked them on 23 October they were in among the Bersaglieri before the Romans became aware of it. The only place on this portion of the beachhead line where there were any defensive works was at Henni. From Henni to Gargaresh the line was elaborately fortified, consisting of trenches, mud walls, barbed wire and pits with sharpened stakes at the bottom. These defenses should have been on the eastern side of the oasis instead of where they were. The reason for this being that the Turks and Arabs could not possibly hope to advance successfully over a front that gave them no protection whatsoever. Gargaresh and Bumeliana, being farther south, were more or less removed from the protection of naval gunfire, and in consequence these positions were well supplied with artillery. Again the Turks had continued to carry out successive night raids at Bumeliana, the continual repetiton of which gave the Italians the idea that the Turks would always attack at this point and no where else.

Nesciat Bey, the Turkish commander, did the best he could with the troops and materials at hand. Compelled to evacuate Tripoli on short notice, he found himself with but a few regular troops and a scattering of Arab allies. Messengers were sent to the outlying tribes of the desert asking their support in the fight against the Italians. While awaiting the arrival of these all too few reinforcements, Nesciat Bey took advantage of the Italians lack of outposts to demonstrate with his little force on various portions of the beachhead line, so that the invaders from the very beginning imagined themselves opposed by a huge force of the Saraceni, as the private soldier called them. Fortunately for the Italians no reinforcements could reach Nesciat Bey from Turkey due to lack of transport facilities, internal domestic trouble and the extremely long distance to be covered. No one has ever questioned the fighting qualities of the Turkish and Arab soldier, but of what value was this asset when there were not enough of them, when many of the weapons used by the Arabs were old British flintlocks, and when food and ammunition were scarce. Had the Turks been the invaders and the Italians the defenders, there certainly can be no question as to the outcome. As a matter of fact the Italians, once they had landed, did give up the attack initiative and became defenders, but defenders with a good source of supply.

The Italians at this time had with them two airplanes, which on the morning of 23 October had gone southwards towards Bumeliana. In due time they returned and reported that they had seen four Turko-Arab encampments, the nearest being less than three miles from the Italian lines, and the others six or seven miles off. Here was an opportunity for Gen. Caneva to destroy the enemy forces piecemeal, before they effected a junctoin with one another. Caneva's staff attributed these reports to the fevered imagination of the flyers and laughed them off. Even in those

Lower Level Premium Rates

but relatively higher cash, loan and paid-up values that can be obtained elsewhere for a similar type of paid-up insurance.

The Navy Mutual Aid Association

Now Offers

all the advantages of Commercial Insurance plus Navy Mutual Aid service.

ROOM 1038, NAVY DEPARTMENT, WASHINGTON, D. C.

days yes men played a vital role, no bad news should reach the commander and it didn't.

The Italian troop dispositions remained the same. Shoulder to shoulder the Bersaglieri lay in a semi-circle about the town, and no one sector of the line could hope to receive reinforcement for the simple reason that there was none to be had, all available men being up on the beachhead line. At this stage of the game there were 20,000 Italians in the oasis sector.

The planes continued their reconnaissance which was of an extremely poor quality, for during the morning of 23 October, the enemy in force worked their way to east of the oasis without being seen. In fact the main body of the Turks entered the eastern end of the oasis and, taking advantage of the cover afforded by the palm trees, marched without hindrance to Sharashett. Yes, Gen. Caneva had at his disposal a regiment of cavalry, which he had dismounted and caused to serve as infantry, thus depriving himself of a fine source of information.

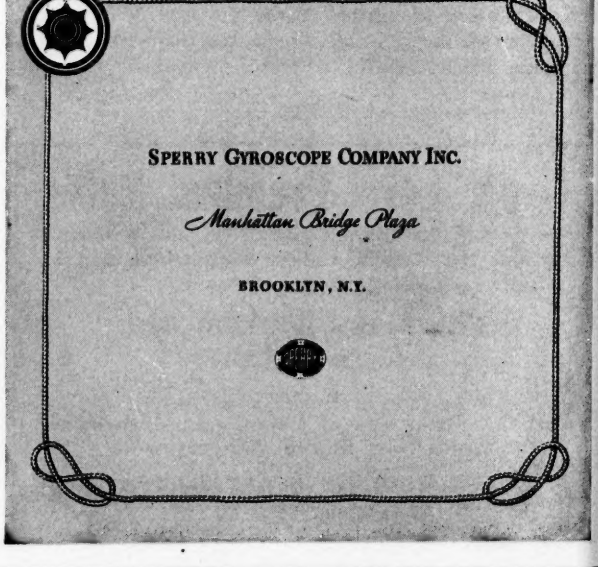
At 0800 the Turks and Arabs demonstrated for an hour before the western portion of the line near Gargaresh. During this attack the Italians received some support from the fleet. The Turks then withdrew, apparently without casualties in spite of the seemingly fierce fire directed at them by the defenders. Around 0900 another attack was delivered against the old cavalry barracks by white-robed riders and infantry. They too were driven off by artillery fire, but continued to harass the Italians by rifle fire from behind the sand dunes, concealed from observation. While these diversions were taking place, the real effort of the Turks was meeting with success. The beachhead or oasis line from the cavalry barracks to Sharashett was held by the 11th Bersaglieri, the 5th company of which held the extreme left of the line from the seashore to the Benghazi Road, the 4th company occupying a sector from the Benghazi Road to the Tagiura Road. This was the weakest part of the line, being without a field of fire or even rudimentary entrenchments. So poor were the dispositions on this part of the line that neither out guards nor sentries were posted. During the night of the 22nd a number of Turks succeeded in filtering through the Italian lines and concealed themselves among the palms and thickets in rear of the Bersaglieri.

The men on this part of the line were awakened from dreams of home by the savage barking of the native meathounds. Too late, however; they were unprepared for the fierce rush of the Saraceni and perished with the sleep still in their eyes. A few of the Bersaglieri were rallied by their officers and fought desperately from the interior of some nearby native huts. To add to the Italian difficulties, the enemy who had slipped by them during the night now attacked them from the rear. By 0800 the 4th and 5th companies of the 11th Bersaglier had been annihilated, wth the exception of 20 or 30 men who had fled at the first fire. The enemy then turned its attention to the strong point at Henni, but were unable to carry it. This was due to the fact that the attackers scattered after their inital success at Sharashett in order to indulge in their ruling passion—looting. Some of these looters even penetrated as far as the town itself and gave Gen. Caneva and his staff a bad case of the jitters which lasted for quite some time.

Although they could not capture Henni, the enemy continued to fire and kept the Italians from making a counterattack. If the Italians ever entertained any such idea it was never forthcoming. Colonel Fara, who was in command of this part of the line, was ultimately hailed as one of the greatest heroes of military history by the Italian press. The only reason that he held on to the Henni position was same as that of the man who had the tiger by the tail. Had a counter attack been attempted he and his entire command would have perished, for the Italians could never compete in open warfare with the men who faced them that day. In all, the Romans lost well over 600 men during this morning's work.

Like the Duke of Plaza Toro who never went before, Caneva sat in his headquarters and did nothing. When the sound of heavy firing was heard from the direction of Sharashett, nobody at headquarters or at Bumeliana knew anything about it, nobody even sent to find out the why and wherefore. They also heard firing from the oasis, but as firing at anything and everything had become a charming and accustomed habit for the past weeks, no attention was paid to it. Only when the survivors of the shambles at Sharashett staggered into the square near his quarters did Caneva act, and then only to have his house well sandbagged and put in a state of defense into which no one was allowed to enter or leave. The farce was given a tragic ending when the men who were defending the general's house fired upon and killed 9 or 10 members of the town patrol, whom they had mistaken for Turks.

The Arabs scattered as quickly as they had come. Some of these followers of Mahomet, avid for loot, were left behind, and it took the Italians many days to root them out. Unfortunately for the inhabitants of this oasis, all natives looked like enemies to the nerve shaken Romans, the result was inevitable; massacres ensued. Patrols fired upon one another, and a fine case of jitters was had by all. The commanding general, his army and the Italian press ex-



NOT U. S. PROPERTY
29125

cused this successful Arab attack by saying that they were surprised. The general had evidently forgotten or had never read Fredricks' maxim, "that it was permissible to be defeated, but unforgivable to be taken by surprise."

Nesciat Bey, having found out that his troops could go to town, as far as outfighting the Italians was concerned, determined to follow up his first venture by launching another on the 26th. The great trouble was that although his men got into the defenders position and drove the Italians off, they were incapable of consolidating and holding it.

The air force reported several large Turkish columns on the 25th, only four miles southeast of the Italian position. On the 26th an assault was made on the beachhead line from Sidi Mesri to Bumeliana. In the face of what seemed to be an overwhelming fire, the Turks and Arabs succeeded in cracking the Roman position and penetrated near to the town. The actual breach was made between Sidi Mesri and Bumeliana, where a strong point consisting of the 7th company of the 84th Infantry, held the house of the former Turkish Chief-of-Staff, Gemal Bey.

This strong point was captured after a terrific frontal attack which swept everything before it and completely wiped out the 7th company. Swinging to right and left after they had broken through, the attackers commenced firing upon the flanks of the Italian rear.

Confusion and his brother pandemonium held sway, the Roman line buckled, and its defenders took to their heels. That the entire Italian force was not wiped out can only be attributed to two things—the natives love of looting, and the fact that the Italians had had foresight enough to bring up additonal artillery the day before.

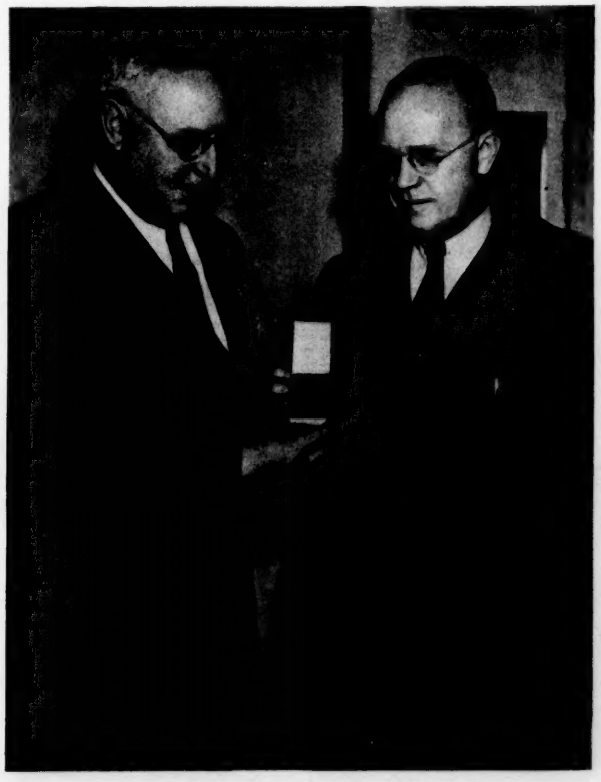
As at Sharashett the Arabs were too few in number and too poorly armed to consolidate any captured position with a degree of permanence. Having broken the line they gave themselves over to their favorite sport, that of looting, and this of course proved their undoing. Charles Martel during the battle of Tours, took advantage of this Arab weakness of which he was cognizant and warned the Franks, "they must not be attacked until they have loaded themselves with the encumbrances of wealth." Finally the Romans took heart and closed the gap in their line and aided by naval gunfire which by this time had gotten the range, they were able to stave off further assaults by the enemy. However, they still had 300 or more enemy in their rear, and the task of getting rid of them proved to be a costly one.

Nesciat Bey was not able to reinforce his men in the oasis due to the intense fire which was eventually placed across the sand dunes by the Italians. After several futile attempts to do so he retired, abandoning his men to the tender mercies of the Romans. Ensconced in his sandbagged house, Gen. Caneva surrounded by his yes men was at his wits end. He ordered that fire should be kept up on all parts of the desert for an entire day, although the enemy had long since retired out of range to recoup for the next attempt. On the 28th, he ordered the abandonment of the eastern portion of his line, and brought it back 2 miles nearer the city. Thus ended the affair of Sidi Mesri. It is interesting to note in passing that the Turkish commander never had more than 1,500 effectives at any time during the fighting around Tripoli.

Here is what a contemporary Italian writer gave out for home consumption, ". . . . in consequence of the victorious action of the 26th, all the east front has been brought back about two miles towards the city so as to form a straight line from the tombs of the Karamanli to the Marabout of Sidi Mesri . . . . we have thus abandoned two forts to the enemy (Mesri and Hamidie) also one most important position (Henni) and a large stretch of land near Tripoli whence the enemy can fire with cannon on the city . . . ."

CONGRATULATIONS

Brigadier-General E. A. Ostermann, Adjutant and Inspector, U. S. Marine Corps, receiving his stars from the Major General Commandant.



Known as Best— Best Known—

E. P. HINKEL AND CO., INC.

600 RHODE ISLAND AVENUE, N. E.

WASHINGTON, D. C.

Cleaners of Fine Chinese, Oriental and Domestic Rugs

Visit Our Plant When in Washington

A Book and Equipment Box

By Maj. K. A. Inman, U.S.M.C.

Where do you keep your publications required by Paragraph 1-3 Marine Corps Manual? Are they handy for use at all times and are they up to date and all changes posted therein? The answer by most of us would be; we keep them most anyplace and usually are some place else when needed most and as to being posted up to date: Well, don't let the A & I know about that part of it.

Marine Corps Manual, Paragraph 1-3 states as follows:

"Publications to be in the possession of all officers.—The following books and orders are furnished by the Marine Corps free of charge and should be in the possession of officers and warrant officers as indicated below.

All officers, chief marine gunners and marine gunners:

Navy—
- Navy Regulations.
- Navy Department general orders, file of.
- Landing-Force Manual.

Marine Corps—
- Marine Corps Manual.
- Marine Corps orders, file of.
- Circular letters, file of.
- Uniform Regulations.

Army—
- Field Service Regulations.
- Training Regulations.
- Technical Regulations.
- Training Manuals.
- Field Manuals.

All Chief quartermaster clerks, quartermaster clerks, chief pay clerks, and pay clerks:

Navy—
- Navy Regulations.
- Navy Department general orders, file of.

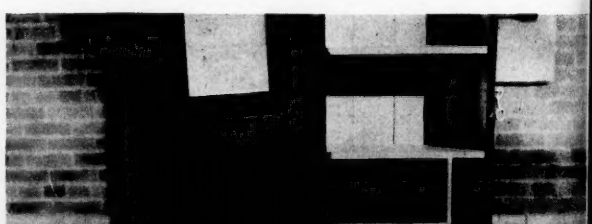
Marine Corps—
- Marine Corps Manual.
- Marine Corps orders, file of.
- Circular letters, file of.
- Uniform Regulations."

And your equipment? Is it hung up some handy place or is it just laying around and never ready when wanted? The answer here is also unsatisfactory.

Marine Corps Manual, Paragraph 5-42 states as follows:

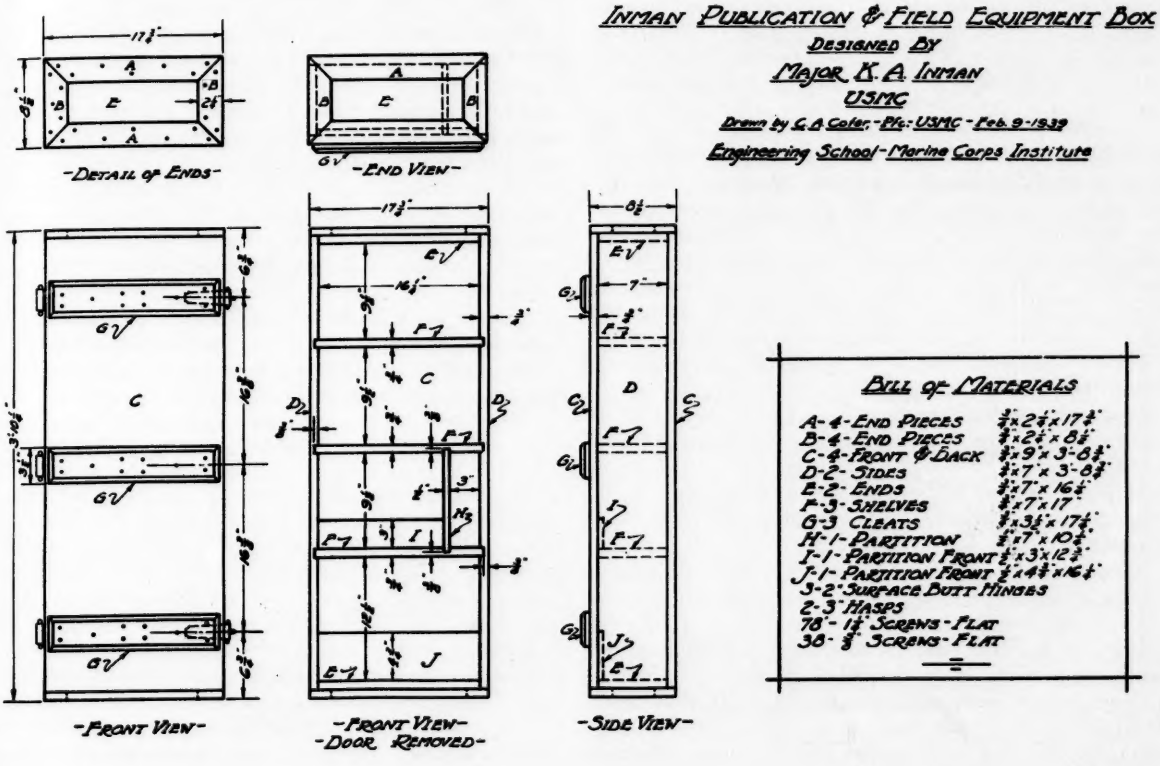
"(1) OFFICERS.—The following is the field equipment required for officers of all ranks up to and including the rank of colonel:

(a) Automatic pistol, .45-caliber, 3 magazines, holster, lanyard, and 21 rounds of ammunition.
(b) Pistol belt, with suspenders and magazine carrier.
(c) First aid package and pouch.
(d) Canteen, with cover and cup.
(e) Haversack, with knife, fork, and spoon.
(f) Field glasses.
(g) Whistle.



(h) Poncho.
(i) Flashlight, electric.
(j) Wrist watch, with luminous dial.
(k) Compass, with luminous dial.
(l) Dispatch case, message book, notebook, black, blue, green, and red pencils.

less than seven inches in order to compactly fit in the space designated for the purpose. Loose pamphlets such as the Field Service Regulations may be placed in either of the book shelves. In the section marked letter files, Post Exchange Regulations, Headquarters Bulletins and circular letters, are placed with some space for the



(m) Clothing roll.
(n) Bedding roll.
(o) Trunk locker. (Field officers, 2 trunk lockers.)
(p) Identification tags, when prescribed.
(q) Gas mask, when prescribed.
(r) Steel helmet, when prescribed."

The Inman publication and field equipment box designed and developed by Major K. A. Inman (AQM) USMC, fills the long felt need for a satisfactory, compact repository for the required publications and equipment. Sketch shows the box and required material while the photographs show the box with all the required impedimenta stored in it and empty with all the impedimenta laid out for inspection in front of it.

The company or other organization carpenter can easily construct the box with the aid of the sketch and the cost is about $2.25 each and well worth many times that for its convenience alone. Locks of course are another item and the cost will vary from twenty-five to sixty-five cents, according to the kind purchased.

In storing the Basic Field Manuals a small section has to be cut from the ends so that the total length is a little

equipment specified in Marine Corps Manual, Paragraph 5-42. In the photograph of the box loaded (less the bedding roll, clothing roll, trunk locker and wrist watch) everything specified fits compactly into the box.

A copy of articles 1-3 and 5-42 Marine Corps Manual are posted on the inside of the lid of the box as a quick check list to see that everything is "present or accounted for."

Total weight loaded: 140 lbs. Empty: 45 lbs. Size 5¾ cu. ft.

As a suggestion; in the future, when officers' professional book are packed and crated for shipment a book and equipment box might easily be constructed under the allowance for packing professional books.

NOTICE

All officers are urged to submit articles and photographs or diagrams for publication.

Democracy vs. Totalitarianism

Address by the Honorable Adolf A. Berle, Assistant Secretary of State, delivered as the Bronson Cutting Memorial Lecture at Constitution Hall, Washington, D. C., at 8:00 P. M., Monday, March 6, 1939.

I.

Surely a prophetic sense led the founders of this Memorial to make sure that the theme of the Bronson Cutting lectures should be the conception of democracy; for intervening years have underlined the renewed necessity of making democracy a vital, driving force. Gone is the day when democracy could be passively accepted as the universal order of things. Today, conditions demand that the system of freedom under law which we call democratic shall be worked for, lived for, and if need be, died for. I think this is well. We must again with joy devote the best of our hearts, the strength of our minds, the triumph of our energies, and the flower of our technical skill towards realizing for democracy the ideal which democracy alone recognizes: opportunity for every man to bring to reality the best of himself, in the common cause of his country and his kind. In that rededication, we shall all find strength.

Since we must discuss democracy tonight in its relation to foreign affairs, it is fitting that we redefine the terms. At bottom, democracy, whether in domestic or foreign affairs, has a moral base. It rests on the assumption that, so far as possible, every individual must be permitted to choose his own ideal of the good life; that in doing so he must permit others like freedom of choice. The underlying premise is that every human being, whatever his talent or position, is entitled to dignity, respect and love. Our own great charter of liberties, the Bill of Rights, stems directly from this premise.

This specifically excludes those philosophies which today are called "totalitarian," whether Fascist or Communist. These necessarily proceed on the assumption that a supreme authority of some kind will determine objectives, will choose for its people the life it thinks they ought to have; and will coerce them into following that pattern in thought and deed. There can be no intellectually honest accommodation between philosophies based on the essential worth and freedom of the individual mind, and those which deny any such basis. Totalitarian countries, denying the conception of freedom, claim other sanctions for their justification. Just as, in older days, an absolute monarch claimed to rule "by the grace of God," so a Communist dictator today claims to rule by the grace of the proletariat; and other dictators claim to rule in right of a misty race superiority. There is no particular evidence indicating that any divine power, the proletariat, or any race, respectively, have interested themselves very much in the premises. In the interest of clear thinking, we must today liberate ourselves from unclear use of confused terms. "Democracy" is not a word which can describe a united front. Merely being anti-Communist, entitles no one to wrap himself in the name of "Americanism"; merely being anti-Fascist, entitles no one to use the word "democratic."

Equally, we must abandon the judgment of policies by mere names. There was a time when the method of fighting any progressive idea was simply to call it "communist." We are beginning to outgrow that; yet, silly as it may seem, some progressives have adopted the equally silly notion that every opposition can be fought by branding it with the word "Fascist." We must clear our minds of any such stupidity, and draw the clear-cut line between democracy and totalitarianism; between the glorification of the undefeated spirit, and the flat denial of its right to free existence.

Tonight we have for our task the consideration of this conception as applied to the conduct of foreign relations, particularly in the Western hemisphere. It is not a new subject. Much of the debate concerning the adoption of the Federal constitution turned on exactly this point.

II.

In foreign affairs we necessarily start with the realization that every nation has a right to order its own affairs. The democratic ideal specifically excludes imperialism in any form. Consequently, it is not for us to regulate the ideals or methods of other nations, so long as they do not affect us. Only where, by action, they threaten the existence of a world in which a free people can live freely, or violate the laws of common humanity, are we entitled to take a stand. It would be sheer folly for us to undertake to determine the kind of government which other nations should choose. The occasional experiments which the United States attempted in this regard, partciularly in the Caribbean area, were disastrous mistakes; and we properly acknowledged the error, and ended them. We have renounced the policy of intervention, and the renunciation will be permanent.

The Western hemisphere has frequently sought, and has now adopted, a policy of common defense. So far from giving us any right of control over other nations on this hemisphere, we have entered a solemn and binding covenant, contained in the declaration of Lima, by which all of us assure protection to each one of us in finding its own way, uninterrupted by force, or by other form of conquest from without the hemisphere. This is why the American Republics assembled at Lima first declared the principle of continental solidarity, and continued:

> "Faithful to the above mentioned principles and to Their absolute sovereignty they reaffirm their decision to maintain them and defend them against all foreign intervention or activity that may threaten them;
>
> "And in case the peace, security or territorial integrity of any American republic is thus threatened by acts of any nature that may impair them, they proclaim their common concern and their determination to make effective their solidarity."

This is the doctrine of the defense of a hemisphere, not

the attempt to control a hemisphere. It is democratic precisely because it recognizes the free choice of all the nations concerned.

Now there is obviously a limit even to free choice, even by nations. Governments which arm, and persistently threaten war, directly affect us. We, too, are compelled to arm, lest the peace of the continent be disturbed. Nations which project as part of their program a doctrine of world subjugation, whether of force, or through attack by propaganda, on our own democratic social system, necessarily compel us towards defensive measures. If a group of nations chooses to join in a policy which has that effect, we are fairly entitled to consider whether the defense of our own institutions may not require assistance in one form or another to those nations who, like ourselves, desire to keep the peace. We may dismiss, as unworthy of serious consideration, comment from overseas that such assistance is "provocative." It is weakness, not defense, that is provocative in the world of today.

Our commitment is thus to the conception of a world at peace. Our interests lie parallel with all peace-loving nations. We must pursue that aim in cooperation with such nations, using the means best calculated to attain that end; and the means must always be determined by the circumstances which have to be met.

This is traditional. Hamilton, in arguing for the Constitution of the United States, made an early and cardinal point, using phrases of strangely modern ring. Defense was always essential. It would be easy, he thought, for imperialist governments to "fabricate pretenses of approaching danger"; and when such desired appearance might have been worked up by some foreign power, it would have to be "appeased again by timely concessions." It was necessary to be ready in advance to meet such situations in advance of their appearance, Hamilton noted in passing, as "the ceremony of a formal denunciation (declaration) of war has of late fallen into disuse," so that actual hostile action preceded the formal state of war. "The rights of neutrality will only be respected," he observed elsewhere, "when they are defended by an adequate power. A nation, despicable by its weakness, forfeits even the privilege of being neutral."

We have here a picture so close to that of today that it may fairly serve as guide. It was the duty of the young democracy to be strong, lest it cease to exist; it was its duty to observe affairs, in the hope of continued peace; it was the duty of a democracy so to deal with those affairs that it might eventually relieve from the perpetual necessity of defense.

Our own democracy, at the moment, has a tremendous stake in world affairs. Certain propositions have apparently been demonstrated; and these, whether we like it or not, have to guide our conduct.

First: a world in arms necessarily means that the United States must be armed. We do not desire to live in an armed camp. By consequence, our major interest is in reaching a system in which armament and force cease to be a method of carrying on world affairs. Until that state is reached, we must at all times be prepared to repel force with equal or greater force, for we have had object lessons of what happens to countries not so prepared. Yet we must always be alert to seek opportunity to end the need for armament.

Second: a world which does not permit commerce to flow freely is a world in constant distress. It is literally impossible for any nation to be self-sufficient; the buying and the selling, the exchange of goods and ideas, are essential; when that process breaks down, the consequence is economic misery which too often results in the attempt to solve international problems by force. It follows that we must steadily seek to give free flow to the course of world commerce.

Third: no international situation is static, and changes have continually to be made. Yet the only changes which offer solution are those based on negotiation, agreement, good will, and an approximation to international justice. Arrangements based on force, either applied or threatened, have too often led only to attempts to reverse them, again by force. We have, therefore, as a necessary object, the attempt to re-establish international equity, and we are necessarily affected by any law breaker, and by any system which proclaims that force gives right. For this reason especially, we can never waive the right which every individual in this country has, to survey the international scene and to make up his mind on the methods and doctrines by which matters are carried on in the world. At any time, such methods may directly affect us.

You readily realize what the real objectives of American foreign policy are today. All of us, throughout our lives, have watched a Europe which was an armed camp; have seen that competition break into a world war; have seen the flames of war die down, to smoulder until they blazed again in various parts of the world. From the history books we know that this has been the story of much of the Western World through centuries. Yet practically all of us in the United States are here because our forefathers sought, among other things, release from the endless cycle of threat and counter-threat, armament and counter-armament, revenge and counter-revenge, wars of conquest, followed by wars of restoration. In that bloody sequence of war or preparation for war, the democratic ideal can never be wholly realized. This hemisphere, in consequence, must be free of it.

For a century and a half, we have, on the whole, maintained that freedom. The boy does not automatically go from school to a military camp; the woman does not assume in advance that her son stands a fair chance of being morally or physically killed or maimed on a battlefield. Our children are not taught to use gas-masks; we do not see an airplane overhead with a shuddering wonder whether it may not release a bomb; nationals of other countries abiding here do not scan the morning papers to discover whether their life in America is to be cut short by an international quarrel. From these things, the democratic ideal has delivered us; this would be reason enough, if there were no other, for its unremitting defense.

There are some who say, today, that our foreign policy is unclear. By this I presume is meant that no one has undertaken to state in advance exactly what will be done under future circumstances which can be neither foreseen nor stated. To do so would be impossible; and there is no occasion for it.

We are not called on now to make commitments. We are entitled to consider the development of affairs to collaborate with peace-loving nations wherever we can; to keep open constantly the gate of free agreement between

XUM

free peoples, so that solutions need not be had by force, but may always be available by processes of reason and justice. For though the world is torn today with controversy, there must be eventual issue. No country in any part of the world, save perhaps our own, can continue for more than a few short years, either the warfare that is actually going on, or the economic burdens of war itself. It is hardly too much to say, if you choose, not that war may come, but the war conditions, in all economic and many social aspects, already exist in much of the world, that these conditions, in fact, have been continuing for the past two years. Between the status of peace under an armament race of gargantual proportions, and war itself, there is all too short a step. The conditions now imposed are not dissimilar from those which were thrust on the world from 1914 to 1918.

This cannot last.

Already it is plain that the populations of practically every country in the Western world seek adjustment. They are unable to see why, if commerce is free, nations cannot live save in an atmosphere of perpetual alarm. If trade is open, fighting is unnecessary. It is for this reason that Secretary Hull has constantly and continuously iterated and repeated the necessity for opening commercial channels; and why the structure of our own trade treaties is taking form as an offer to all the world of a system in which every country may find its own place. From this system no nation need be excluded, except by its own will and deed.

There is thus presented the first item of a democratic peace: economic freedom for every country which desires it.

Similarly, there must be an end to the armament race. Armament, necessary as it may be for defense, represents a net loss to the economic life of every nation, and of the world. It likewise represents a psychological loss: the moral attitudes of militarism do not go along with the pattern of democracy. There is thus presented a second item of the needed democratic peace: disarmament. The acid test of desire for peace must be the willingness of all concerned to abandon instruments of war.

And there is also presented a third item: the acceptance of a rule of law, so thoroughly accepted morally that it may again become the base and norm by which international relations are carried on. That law must provide for equitable processes of change, where change is needed. An outstanding tragedy of the past two decades has been the fact that changes were made as a result of force or threat of force, many of which should have been made, but were denied, when the appeal for them was sought on the ground of justice and equity. We must be done with that phase, forever; we must recognize the appeal to equity and honor it because of its inherent justice; and we must decline any other basis as a mode of solution.

III.

The American democracy has a peculiar and distinct relationship to the Western hemisphere. This is partly historic: our own democracy was the first great modern establishment in that faith. The model was swiftly followed as Mexico, Central and South America liberated themselves from the Spanish Empire, and declined to be reconquered during the long intrigues of the Holy Alliance. John Quincy Adams sent delegates to the first Pan-American Conference; Henry Clay championed here the idea which Bolivar had made current in South America.

Over a long series of conferences, a method of organizing the hemisphere was ultimately found in the system of periodic Pan-American conferences, of which the first was held in Washington in 1889, on the call of Mr. James G. Blaine. It is interesting to note that the conference was held "to prevent future wars in South America. Second, to cultivate such friendly commercial relations with all American countries as will lead to a large increase in the export trade in the United States."

These conferences, during the following half century, slowly pounded out the essentials of a democratic ordering of foreign affairs within the hemisphere. There was embodied, for instance, in the jurisprudence of the hemisphere the so-called Drago doctrine, by which the use of force for the collection of debts was renounced. There was evolved the complete recognition of the sovereignty of every country irrespective of its force or size. The renunciation of war and the adoption of the principle of arbitration and international justice within the hemisphere was stated and restated; and if occasionally there have been breaches of the rule, these have been exceptions. With the calling of the special conference at Buenos Aires in 1936, a conference properly called "for the maintenance of peace," a declaration of terms was drawn up known as "The Principles of American Solidarity," which may fairly be considered as the internal bill of international rights of the hemisphere. Consolidating the principles worked out up to that time, and to which the United States had unreservedly pledged itself with the advent of the Good Neighbor policy at Montevideo, the declaration of the principles of inter-American solidarity becomes a major document in the history of a democratic hemisphere. The final step remained to be taken at Lima.

For, when the Conference at Lima was convened, the hemisphere entered a mature phase. No longer was it concerned primarily with matters of internal structure. Those principles had been agreed upon; the moral and intellectual acceptance of them by the great powers of the Western continents had been demonstrated by act, as well as word. Yet the currents prevailing in the world had at length made clear that the American continents were no longer apart from the world as a whole; and at Lima it was necessary that the Pan-American group should define its position with regard to the rest of the world.

You are familiar with what happened. Perhaps your familiarity is obscured, because, as usual in reporting a great conference, more emphasis was laid on the debate, than on the ultimate solution. What happened, however, is crystal-clear.

Actually, the first issue came up in connection with a resolution presented by the government of Cuba condemning discriminations based on race or religion; and asserting that no person could be deprived, by such discrimination, of conditions under which he could live with self-respect. This, directly opposed to anti-Semitic propaganda, raised the issue. There was the usual discussion over wording; but the adoption of the principle was never in doubt; and the result was a definite rejection of a spearhead of hatred behind which the shaft of totalitarian influence sought to follow.

Following this, there was presented a resolution declaring it an invasion of sovereignty for any outside country to attempt to mobilize its nationals, living in the Americas, for political or economic purposes. Those of you who are familiar with the age-old attempt of imperialist powers to make use of their countrymen who have colonized outside their borders, know exactly what this means. A Government seeking empire over a foreign territory frequently and indeed almost invariably, attempts to mobilize its nationals residing in that territory, so as to weaken the state sought to be attacked, and to extend their own sphere of influence. This has not been historically a successful process: the fears frequently expressed today are not borne out by the record. Yet attempts still persist; and the Lima Conference, in bringing the issue into the open and condemning them, have moved a long way towards a definite orientation in world affairs.

In like measure, there was unanimously presented to the Conference a resolution urging the lowering of barriers to free commerce as rapidly as practicable. This deserves a special word.

Much of Latin-America has acted as a supplier of raw materials and foodstuffs to Europe, for generations. Further, the continent of Europe is the only available market for much of these goods. We ourselves do not need them. We cannot regard it as a personal insult to us, as a democracy, because Chile, the Argentine, Brazil, or Colombia, sells part of its product to totalitarian powers; we cannot regard it as a direct affront if they purchase goods from these powers in return. Actually, we cannot contemplate a world in which this process does not go on; for it is no part of the democratic ideal to force any other country into a state of misery or starvation. What we can ask is that the arrangements so made are not exclusive; that is, that the process of exchange, which is normal and natural, shall be kept to a process of exchange, and shall not be used as a process either of political penetration, or of threat to other countries. My own observation is that the South and Central American governments are peculiarly alive to this danger. They know that by entering exclusive agreements their safety is in peril, for a powerful trader on the other side may at any moment cut them off from their economic processes, or, still worse, force them into the position of an economic tributary. There was nothing insincere in the expression in favor of a free commercial world; it was no qualification on that sincerity that all parties realized that the working out of the process involved many problems. From the democratic point of view, the important factor was the recognition of the extreme danger of accepting an autarchic, exclusive base as a means by which economic and political life could be carried on. This is a lesson we may as well take home to ourselves. There are those in the United States who regard every American sale abroad as a victory; yet who think of every sale of foreign goods here as a personal affront. If we are to maintain democracy in a free world, we shall have to get over that particular type of absurdity; instead, we shall have to devote ourselves to working out adjustments, so that the free play of foreign trade is not bought at the expense of great groups of individuals. The greater our imports and the greater our exports, the happier and the freer we shall be; internally, we must make sure that our freedom is not bought at the expense of particular groups of workmen, who ought not to be asked to pay that price for the advantage of all of us.

And, finally, there was the Declaration of Lima, whose terms I have quoted above. This set up a Pan-American group, for the specific purpose of defending not only the internal peace of the hemisphere, but its integrity from any foreign aggression. It evolved a means of making this group operate: the process of consultation. It worked out a method by which that consultation could be held: the call of any government which considered that there was real and active danger. It recognized the two prevalent methods by which aggression can take place: force, or threat of force, on the one hand, internal or ideological penetration, upsetting American institutions on the other. The test is whether the independence and free sovereignty of any American government is threatened.

You would have to have worked in these affairs in order to realize how important a step this was. When, during the World War, our government feared penetration in the Caribbean area through German force and German intrigue, it could only answer by direct intervention; and a shudder ran over the entire American world. Today, were such a situation to appear, we should consult, work out common measures, and the defense could be effected without threat to the sovereignty of any country, and without suspicion that it was masked imperialism.

I know, of course, that there are those here who insist that democracy ought to go further. They say, in substance, that if a Latin-American government is not a ballot-box democracy, as is our own, we are recreant to the ideals of democracy in maintaining friendly relations. I do not think so. Democracy, to my mind, can never recede from the principle noted earlier that each nation must find its own way; that a nation coerced into democracy is not a democratic country. Our faith rests in the inherent vitality and constantly recreated strength of the idea of a free people. Nations from time to time abandon that freedom; but on this hemisphere they have invariably returned to it as their ultimate salvation. If we believe in democracy, our business is not to compel others in this hemisphere to adopt it, but to present a picture of our own country so unified, so peaceful, so strong, so able to take care of its own problems, that it will command the respect and the imitation of its neighbors.

Democracy has here been presented in foreign affairs, and peculiarly in respect of this hemisphere, as preeminently a moral force. It is easy to be cynical about moral forces when others trust entirely to force. Yet, in our own lifetime, we have seen that military, or even economic, dominance was a frail reed indeed. At bottom, no nation, however well armed, is stronger than the strength of its people. In any test, the most formidable war machine breaks down unless the people who constitute it believe in an ideal which is beyond the range of the longest gun, and reaches heights unscaled by the most powerful aircraft. Lacking that spirit, the mightiest of military machines becomes, one day, a dead instrument; the economic, civilian organization which makes its use possible falls to pieces. In that moment, dictatorship ends. Rightly, in foreign affairs, we trust to the steady voice which speaks not from government to government, but from people to people.

BOOK REVIEW

By Major W. P. T. Hill, U.S.M.C.

Engineering Applications of Aerial and Terrestrial Photogrammetry.—By Captain B. B. Talley (C.E.) U. S. Army, 612 pages, 312 illustrations, cloth, 6" x 9". Published by the Pitman Publishing Company, 2 West 45th Street, New York, N. Y. Price, $10.00.

A thorough and expert treatise, covering the principles and use of instruments and going fully into the practical applications of Photogrammetry. The book is the result of great experience in actually taking photographs and actually preparing maps from them. Consequently it is of the utmost interest and value to Military Engineers and aerial observers, to all concerned with topographical work and to civil engineers in many applications. The book explains, step by step, the production of a finished map and the use of single photographs.

Heretofore one had to consult many books and publications to find a complete explanation of any of the phases of the application of Photogrammetric principles to the making of maps from aerial photographs. Here it is all given in a clear, complete comprehensive manner. It is all covered from start to finish.

Captain Talley's training and experience especially qualify him to compile this comprehensive and authoritative work. A graduate of Georgia School of Technology, he has pursued special studies at the Engineering Schools of the Westinghouse Electrical and Manufacturing Company, and of the United States Army. His experience includes work as a designing engineer; two years with the Nicaraguan Canal Survey; three years work on the fire control maps covering New York City and vicinity; three years work as experimental and research engineer in mapping by Aerial Photographs at Wright Field at Dayton, Ohio. He has lectured at the Institute of Geographical Exploration at Harvard University and is the inventor of the Stereo-comparagraph and Stereoradiagraph.

Whether one be a beginner or an advanced worker in Photogrammetry Captain Talley's book has all the answers.

A resume of the table of contents will best describe the value of the book; Preface.

Chapters.

1. Introduction to Photogrammetry.
2. The Photograph.
3. Single lense aerial cameras.
4. Multiple lense cameras.
5. Aerial camera accessories.
6. Flying for photography.
7. The technique of aerial photography.
8. Laboratory procedure.
9. Stereoscopy and the stereoscopic observation of aerial photographs.
10. The multiplex aero-projector.
11. Map projections.
12. Basic ground control.
13. The extension of control.
14. The compilation of Detail From Aerial Photographs.
15. Mapping with oblique Aerial Photographs.
16. Terrestrial Photogrammetry.
17. The compilation of Mosaics.
18. The Reproduction of Maps.
19. Photogrammetric Plotting Instruments.
20. Further applications of Photogrammetry.

Appendix (i) Standard Specifications for Aerial Photography for general map work and land studies.

Appendix (ii) The National Mapping Plan of the Board of Surveys and Maps of the Federal Government.

Index.

Did They Get the Breech Loaders Before Sailing?

The following letter was written by Captain McLane Tilton, U.S.M.C., commanding the Marine Detachment, U. S. Frigate *Colorado* to Major W. B. Slack, The Quartermaster, U.S.M.C.

Frigate "COLORADO,"
New York, March 13, 1870

My dear Major:

I sincerely hope you may appreciate my anxiety about being armed with a rifle of simpler manipulation than the miserable old fashioned Springfield muzzle loader at present in use.

Notwithstanding the fact that the Remington manufacturers have offered to make fifty rifles for me, leaving the matter of compensation entirely with the Bureau of Ordnance of the Navy, I still fear they will not be ordered by the Bureau, and in view of this fact, write again to invite your kind offices in bringing about a "consummation so devotedly to be wished."

My object in writing this is to ask you to get from the Army Fifty of their ".50 cal." Alyn Bruch Loaders, and have expressed to Col. Broome, Commdg. Bklyn Bks., to await my requisition for the same in case the offer of Remington is not accepted by the Navy Department, or not manufactured in time. The rifles I have at present I can turn over to Col. Broome, and I will receipt in any way you desire for the Bruch Loaders if sent to him.

There are thousands of these Alyn B. Ldrs, at the Army Arsenals. I do not care *particularly* for those with the *new solid barrel,* but of course would *prefer them* to those reduced from ".58 to .50 cal." by the insertion of a steel tube brazed in. I will take any rifle you can get, if it merely be a *breech loader, and* (Fifty) *.50 calaber.* This latter requirement is absolute.

Don't allow red tape to stand in the way. You can doubtless manage to get so small number as that required, and I will take such good care of them. The Army Bureau would no doubt take them back after the cruise.

This ship will be here a week longer no doubt, and that will be plenty time for you. Write me when you can send them on so that I can be on the lookout. Don't send the Guard of the Flagship of so important a station in the indefensible state that they are at present. One man with a Breech Loader is equal to 12 or 15 armed as we are, and in event of our landing, or even chasing any "Coreans," armed with an excellent repeater, what even could *Americans* do with a blasted old Muzzle Fuzzle ? ? ?

Yours truly, Tilton.

P. S. Perhaps we will be here 10 days, but certainly a week from Monday.

SQUAD MUSKETRY PROBLEMS WHICH CAN BE FIRED ON RIFLE RANGES

(*Continued from page* 43)

of it and I couldn't find him again without taking my eye away from the sight. This happened twice and in disgust I put down the sight leaf in order to fire with the battle sight. After this and several other similar experiences I came to the conclusion that for shooting at a motionless black bulls-eye on a white target mounted high above the butts the peep-sight is excellent, but is worthless for practical combat use except on very rare occasions such as when a sniper might have a shot at a very distinct motionless target.

Second I found again to my surprise that when you are anywhere except on a prepared raised firing point shooting at a target raised above the butts that it is, on a large majority of occasions, impossible to use the prone position from which we fire 42 of our 72 rounds of qualification firing. Always there is a tuft of grass, a low bush, a bank of snow, a fold in the ground or something of like nature which prevents the target from being seen. Of approximately twenty-five shots which I had at deer (and a deer presents a considerably higher vertical target than a man prone or sitting) about ten were fired offhand mostly at running deer, four or five were fired from the sittnig position, four or five from the kneeling position and three I believe were all that I could get prone, although time after time I took the prone position only to find that in that position I could not see the deer and so would have to change to sitting or kneeling. It seems to me that our qualification course should be changed so that more rounds are fired sitting and kneeling and fewer prone so as to give more training in these positions which will be used more frequently in combat than the prone position.

Third I discovered that shooting while wearing gloves, overcoats and fur cap is quite a different matter from shooting in warm weather in light clothing and wearing a shooting blouse. For one thing the sling cannot be used, as proper adjustment with numbed and gloved fingers seems to be impossible. It is not improbable that at some time we may be called on to fight when the weather is cold. Our qualification firing is always done in warm weather which is what should be done in order to give all men an equal opportunity to make a high qualification score, but we should have musketry work under all conditions of weather, cold, rain and wind included, to give men experience shooting under those conditions. This could readily be done by using the rifle ranges for musketry work during the season when they are not being used for qualification firing.

From the amount which I have written about my personal experiences while hunting readers of this article will probably assume that I think that I am the only person who has ever been hunting. Such is not the case. I know that there must be other persons who have hunted with the service rifle and who have had experiences similar to mine, but their number must be limited because I am certain that if the things which I found out were well known to everyone we would long ago have made changes in our rifle sights and in our marksmanship training in order to increase our combat efficiency.

ELLET'S HORSE MARINES

(*Continued from page* 33)

Later that year the Regiment was mustered out. Those who had enlisted for the Marine Brigade were discharged and those who had been transferred to the command from Army organizations were returned to their former units. The Mississippi was flowing, unvexed, to the sea.

In 1907, Captain Crandall, assisted by as many of the Brigade as could be located, published the History of the Mississippi Ram Fleet and the Mississippi River Marine Brigade. Perhaps the desire to explain, from their point of view, the many controversial points in their relations with the Army of the West and the Mississippi Squadron motivated their work. In extenuation they offered youth—impetuosity—ignorance of military and naval etiquette—independent command and operations—all laced with the inference that their hard and dangerous work met demands somewhat similar to those exacted of Napoleon's Imperial Guards—certain British Regiments and the more recent German Shock Troops. A short life but a merry one! In brief—license and privileges denied to others! Rugged individualism in volunteer units is not peculiar to the Marine Brigade or the Civil War. Recruited under forced draft propaganda they are more apt to lift safety valves in the absence of "old hands." Unquestionably the convalescents included many with the familiar malingerer's characteristics.

Notwithstanding, the Brigade did excellent work and completely met the demands of the situation. Admiral Porter attests to this. Much of it was routine—preventive rather than combatant—work that was overshadowed by the pyrotechnics of Grant and Porter. This article can but brief Randall's log of the Brigade's operations. In reviewing the multiplicity of their assignments and the demands exacted we speculate as to whether a like set of circumstances may ever present themselves. Perhaps not—but their success is ever indicative of a special need—a force that bridges tide and beach—amphibious—equally proficient afloat or ashore—organic to the Navy and capable of projecting the national interests beyond the reach of the Army or the Navy proper. That is the charge and the raison d'etre of the U. S. Marine Corps. It is the Navy's charge that the Corps live and be available for such exigencies.

The impress of Grant, of Sherman, and of Porter is everywhere evident in this campaign. The Marine Brigade was shuttled from one to another: Facilitating the solutions of their respective and immediate problems. The ease with which this was accomplished is pertinent to similar difficulties that we may expect in the future. The Civil War is replete with examples of cooperation of the armed services. Successful or unsuccessful they are exemplary of what to avoid and what to pattern. The short quotation from Admiral Porter's book is typical of the collaboration between Grant, Sherman and Porter in the west—and later. Underlying, of course, was a thorough understanding by each of their common problem. That is to be expected. But more—each possessed a genuine admiration and respect for the other's ability—and responsibility—as well as for the man himself. It would seem that these attributes be essential in the commanders of joint operations in the future.

BOISE DE LA BRIGADE DE MARINE

(*Continued from page 29*)

Into this little corner the Boche had concentrated the strength that previously defended the entire forest. Machine guns with but a few yards between them were massed three lines deep along the ground sloping up toward Belleau. Every path, defile, and draw was sowed thick with them.

We got no sleep the night after the attack. The Dutchmen were so nervous they split the air with hot lead every time one of us coughed. Our trenches were so close, in some cases but 50 yards apart, that our men hurled rocks into the enemy's lines across the way, then ducked for the machine gun barrage that inevitably came down. When one gun opened the rest followed suit like a falling line of dominoes. This exchange of rocks for shots was kept up all night. By morning our men knew the location of every gun on the front.

The next day we again received orders to evacuate the Jerries, but this time under better auspices. The enemy's nervousness precluded any hope of surprise attack, so Division had kindly consented to have the artillery lay an egg or two in the Dutch nests.

They must have worked busily a day with their slide rules, for the concentration didn't open until 5:00 P. M. the 25th. It was good to hear the whine of our own shells over head, and to see them knocking down a little foliage on the other side. We had witnessed the reverse so often there was much speculation as to whether or not we *had* any artillery in France.

The fire continued at intervals throughout the entire night and all next day. As it ceased promptly at 5:00 P. M. on the 26th our men were on their feet and running.

Contact was difficult as the woods in this area were so thick men could pass within a few feet of each other unnoticed. It was impossible to exercise control even over the smallest units, but our long experience in tropical jungles played us in good stead.

We reached the enemy trenches to find the Dutch crawling out from under rocks, coming out of caves, and peeping out of dugouts, very much surprised to receive callers. With a Marine yell we swept across their first lines and into their secondary before they could pull up their suspenders. The weight of their own retreating numbers blocked the fire of the guns behind them until we were on them. "Teufel hunken! Teufel hunken!" cried the Jerries as they saw who it was after them. This was the battle in which the Marines received the name "devil dogs" because, as a prisoner remarked, "You do not even fear the furies of burning hell."

As we swept through this second line we began to overrun so many of the enemy the job of rounding up prisoners was slowing our progress. I quickly appointed a sergeant to get a small detail and start men for the rear as fast as he could. I ran on to catch up with the leading platoons pushing at a fast trot through the underbrush. Suddenly I looked up to find a big Hun coming out of a hole and winding up a potato masher to sling in my puss. I raised my gun to fire but found the last shell in my magazine had locked the slide to the rear without my noticing I was empty. Desperately I drew back to hurl the .45, but before I could let go, the Jerry slumped to the ground, rolled back into the hole, and the terrific explosion of his grenade splattered soggy bits of him in my face.

"Better load up again, lieutenant," advised one of my corporals, ejecting an emptly alongside me. "It's going to get tougher up ahead."

I grinned a thanks at him, shoved in a fresh magazine, and pressed on.

The advance of our company was so fast we had far outdistanced the 16th company on our left before we realized it. When a message finally reached us that they were held up, we sent one of support platoons to their aid. From later reports I learned that it came in on the rear of over two hundred men and twenty-two machine guns holding up the 16th company. Seeing their plight the Germans tried to surrender only to have their officers turn the machine guns on them before the 16th could come forward to stop the slaughter. During this action Pvt. Lienhart of the 16th by ingenuity and daring captured seventy-nine prisoners including four officers and took them back to Brigade single-handed.

Free to move, the 16th company now overran everything in its front until it was up abreast of the 47th. The line solidified, we now clashed gears with the last German trenches, turning their own guns on them as they fell into our hands. We had come through so rapidly they had found no time to spike them.

We had expected a determined stand to be made here, but the fight had gone out of the Dutch. With the first push of the renewed attack the defenders broke and fled for Berlin, leaving everything behind but a forwarding address. A relentless pursuit followed until nearly daybreak, when the battalion commander, Major Shearer at this time, called a halt and reported, "The woods now U. S. Marine Corps entirely."

American Forces had fought the largest engagement in their history. After nearly a month of battle the Bois de Belleau was ours. The Marine Brigade had captured over 800 prisoners from six of Germany's best divisions. In this last assault our battalion had taken nearly 100 machine guns in its front, and my company alone had taken prisoners from five German companies, an indication of the strength the Boche had in the woods.

A week later in a rest area where the wine was sweet as our memories the skipper came in, face beaming like a fresh minted dollar, and laid a crisp new map of the Chateau Thierry sector on the table. It was the first sketch I had seen of the area over whose bosom we had wrestled for four weeks.

"Lookie here," he says, "I guess we made a name for ourselves."

He pointed a tobacco-stained finger up at the big botch of woods underneath the little town of Belleau. And there in the fresh ink of the lithograph was the new French title, "Bois de la Brigade de Marine."

NEW PUPPET PARADISE

(*Continued from page* 25)

Nipponese military octopus. A tool in their hands, "Meng-Chiang" is a Japanese tool against Russia.

Around the Shanghai commercial and social clubs one will hear this topic debated—above all. Such close and reliable students of the affairs of this area as Hallett Abend of the *New York Times* and John Ahlers of the *China Press*, especially the latter, will support the above extension of remarks.

In brief, almost from the very first of the present "show" the higher ups among the Japanese have been emphatic about their "immutable decision" never to permit a return of any character of Chinese sovereignty in Inner Mongolia. And that this whole affair dates back as far as the winter of 1931 when General Honjo in Mukden showed several friends on the map "Why the Japanese Army must eventually control the Peiping-Suiyuan Railway." General Honjo headed the Kwantung Army when Japan absorbed Manchuria, for which he was bountifully rewarded by being made a baron and assigned to duty as the personal aide to the Emperor. A short time ago, when several European journalists were in Manchuria, an official of the South-Manchurian Railway spoke very frankly to his guests when he said that "Nothing can or will prevent the Japanese Army from trying conclusions with Russia. We must possess not only the Vladivostok area, but all of eastern Siberia, east of Lake Baikal. Otherwise, the Japanese position in Manchukuo, Jehol, and Inner Mongolia will be perpetually exposed to a great danger from that flank."

COOPERATION BETWEEN THE NAVY AND AVIATION

(*Continued from page* 16)

auxiliaries which may have inevitably been placed in a dangerous position relative to the enemy.

The fundamental characteristic of the airplane is its admirable mobility. One profits from this valuable quality, to displace from their habitual locations the mass of aviation on time, either for support of the Army, on independent missions, or for employment as aforesaid, according to the strategic maneuver that may seem most convenient. That portion of aviation permanently detailed to the service of the fleet in motion can similarly pass from one base to another, in accordance with the maneuvers of the ships.

In order that these displacements be made rapidly, and because it is necessary that from the bases thus selected the support of aviation reach the ships promptly and with certainty, there must be a perfect agreement between the Navy and Aviation. There must be continuous mutual support, born of a conviction that the two arms, divided into two services for technical and organic reasons, form together a single force, for the better employment of both, in the prosecution of war at sea.

MERCHANT SHIPS AND NATIONAL DEFENSE

(*Continued from page* 7)

entry into business may only hope that private interests will see their way to the acquisition of the service and in this case as in all others, private owners must show by their performance that they are capable of developing the merchant fleet which the requirements of national defense demand. The Government must, of course, cooperate to the full extent of its authority.

It is not in numbers alone that strength is found. We built hundreds of ships during the war and immediately after but they were not entirely suitable for peace-time operation. We do not want to repeat that experience. Ships must be built but we should so plan them that they will be the most suitable for operation in competition with foreign lines in times of peace and capable of rapid conversion to naval or military use in time of war. The first chairman of the Maritime Commission aptly remarked in 1937 that we were about to begin anew the task of building a merchant fleet, "not in a riot of enthusiasm, not with an expenditure of billions, but with a carefully planned program that gives due regard to the factors of need, methods, and cost. Therein, we believe, lies our hope for the future of the American merchant marine." It is just as inadvisable to expend billions on merchant ships at one time as it is to do so for the active military forces. Both must be developed on the basis of long-term programs. It is only thus that we may obtain the benefit of experience and take advantage of such improvements as may be suggested by that experience. Foreign countries do not build in a frenzy but gradually and steadily construct vessels which are generally successful on the world's trade routes. The needs of a merchant fleet and of national defense are so varied in types that we cannot build masses of stereotyped craft. In our first year we have laid down eight different types. The future will see even more diversification and it is only thus that we may expect to develop the sound merchant fleet upon which we must rely to support the military forces in times of emergency.

Congress, acting as the representatives of the people, has determined that we shall rebuild our Merchant Marine. The need for merchant ships to supplement our Naval forces is fully recognized. The declaration of policy contained in the Merchant Marine Act says that the Merchant Marine shall be privately owned and operated insofar as may be practicable and this is the goal we should aim at but, should such ownership and operation be found impracticable, the ships must be built and operated by the Government itself for their existence is vital to our defense. There are many problems to be solved as we advance. None is too complicated to defy solution and the Maritime Commission, active in cooperation with private owners, must be relied upon to execute the directions of the basic law and to furnish us with a fleet commensurate with our position as a world power and fully capable of serving our needs in peace and war.

U. S. NAVAL INSTITUTE

Founded in 1873 for "the advancement of professional, literary, and scientific knowledge in the Navy."

◆

United States Naval Institute Proceedings

Published monthly, illustrated extensively, for over sixty years has been the Navy's forum.

◆

Officers of the United States Marine Corps

Should read the PROCEEDINGS for pleasure and profit. The issues contain anecdotes and reminiscences, incidents from history and essays on topics of naval interest, technical articles and treatises on naval development and progress, book reviews and discussions, and international and professional notes.

APPLICATION FOR MEMBERSHIP

Date.....

SECRETARY-TREASURER,
U. S. NAVAL INSTITUTE,
ANNAPOLIS, MARYLAND.

I hereby apply for membership in the U. S. Naval Institute and enclose $3.00 in payment of dues for the first year to begin with the..... issue of the PROCEEDINGS (the monthly magazine of the U. S. Naval Institute).

Name.....

Address.....

.....

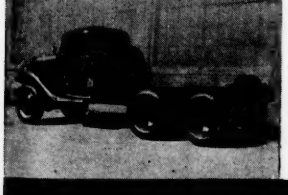
FROM SMALLEST FORD CONVERSIONS TO THE

BIGGEST BRUTES

on Rubber!

They're All MARMON-HERRINGTON *All-Wheel-Drives*

● **Here is the most complete line of *all-wheel-drive* vehicles ever offered to the public. Vehicles of every size and description for transporting passengers or doing the heaviest hauling over hill and plain, desert or marshland. For oil field service and logging. For road construction, road maintenance and snow removal. For thousands of jobs too difficult for ordinary, conventional, two-wheel-drive vehicles to tackle.**



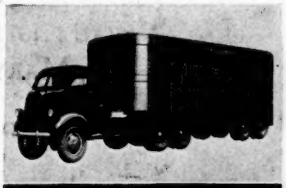
The line consists of conversions of all standard Ford trucks, commercial and passenger cars to all-wheel-drive and more than thirty extra heavy duty Marmon-Herrington all-wheel-drive trucks built from the ground up in the Marmon-Herrington plant. Special bodies and equipment installed as required for military, public utility, oil field, logging, and other types of service.

It's *traction* that counts, even more than power in all sorts of off-the-highway hauling and for snow removal. *Traction* that keeps the load moving regardless of what's under the tires.

Marmon-Herrington *All-Wheel-Drive* Fords and heavy duty trucks have traction on the front wheels, traction on the rear wheels—and if that isn't enough, traction on an extra pair of wheels behind. But it's the traction on the *front* wheels that adds most to the remarkable performance of these trucks, commercial and passenger cars. Instead of pushing debris ahead of them *these* front wheels are always *climbing, always pulling the load up and over.*

Let us send literature showing these vehicles *in action*. Some dealer territory still open.

MARMON-HERRINGTON CO. • Indianapolis, Ind., U. S. A.
Cable Address: Marton



MARMON-HERRINGTON *All-Wheel-Drive* FOR 1939

XUM

THE

RIGHT COMBINATION

FOR MORE

SMOKING

PLEASURE

Chesterfield

THE BLEND THAT CAN'T BE COPIED

THE RIGHT COMBINATION OF THE WORLD'S BEST CIGARETTE TOBACCOS

Copyright 1939, LIGGETT & MYERS TOBACCO CO.